THE TRADITIONAL HERBAL MEDICINE SYSTEM OF CHOTANAGPUR :

A STUDY OF ITS PRESENT STATUS AND FUTURE PROSPECTS

A Survey Undertaken by the

RESEARCH DEPARTMENT OF XISS

at the request of the

REGIONAL DEVELOPMENT COMMISSIONER, RANCHI

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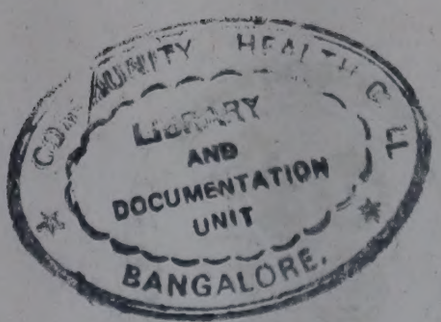

F O R E W O R D

This report presents the findings of a survey on the traditional Herbal Medicine practised in the remote rural areas of Chotanagpur. The study undertaken at the request of Mr. M.C. Subarno, Regional Development Commissioner, Ranchi deals with three areas :

- a survey of common diseases and their prevailing treatment using herbal medicinal plants.
- the extent of survival of the herbal medicine system in the remote rural areas of the region.
- a systematic recording of the various medicinal herbs found in the region.

The report is not a technical study on the medical properties of herbs. Rather it is a survey of the present status of herbal medicine system. We do hope that the findings of this survey will attract the attention of the persons in the medical profession.

The concluding chapter of the report contains several suggestions for future action. We do hope that different Government agencies will take steps for effective follow-up action.

I hereby extend my gratitude to Mr. M.C. Subarno, I.A.S, R.D.C., Ranchi for entrusting this study to the Research Department of XISS. I congratulate Prof. S.K. Chand for the pain-taking work put in and for the excellent

report he has produced.

I am also grateful to Mr. D. Swar and Mr. A.Ahmed for their assistance extended to Prof. S.K. Chand and to Mr. Dharampal Minz, Biswas Bhangra and Florence Toppo for field investigation that they conducted in remote tribal villages.

Lastly, I acknowledge with gratitude the cooperation and assistance received from Rev. G. Hemrom and Sr. Jacinta.

Sarhul, 21 March 1988.

Fr. L. Francken s.j.
Director

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CHAPTER - I

INTRODUCTION

In recent years there has been a resurgence of interest in herbal medicines for various reasons. First there have been several known cases of miraculous cure of diseases by the use of traditional herbs, when the modern system of medicine, represented by allopathy and homeopathy failed to bring about any relief. Secondly, some of these herbs have been found to be so effective in treatment of certain diseases that they have found their way to Western Pharmacopoeia and are providing the base material for preparation of modern drugs. A well known example is that of Rawolifia Serpentina for the treatment of hypertension, of Kalmegh for treatment of liver disorders. Thirdly, on account of interest shown by anthropologist in the study of medicare and nutritional habits of tribes and that of botanists in enlarging their knowledge of botanical specimens, a new inter-disciplinary branch of study, ethnobotany, has helped to promote scientific study of medicinal herbs used by the tribal people.

Since most of this herbs are found to be growing wildly in forests and in remote rural areas and since the knowledge of these herbs and their uses have been handed over from generation to generation of tribal people living in the Chotanagpur area, it has become important to prepare a list of various medicinal plants found in the Chotanagpur and Santhal Paragnas region, before the knowledge relating to the herbal plant is lost or their sources of supply like the forest get exhausted.

The Regional Development Commissioner invited the Xavier Institute to conduct a study of herbal medicine in this region with the following objectives :

(a) Listing of various medicinal plants found in this region.

(b) Identifying their medicinal properties and their uses against the various diseases.

(c) The extent of their availability

(d) Examine the possibility of finding compercial production.

Since the task of listing of various medicinal plant and identifying their medical properties was technical in nature for which service of a person qualified in pharmacology would be necessary and which the Xavier Institute did not have on its staff, the Instute suggested that as a first step a study may be conducted in selected blocks of this region for finding out the extent of popularity of herbal medicine, the incidence of various diseases common in the area particularly among the tribal rural population and medicinal herbs used by the tribal household and the practicioners of this system of medicine for treatment. Information could also be gathered regarding sources of supply of herbs. On the basis of preliminary information gathered through this study, a decision could be taken for taking up a subsequent study in which the medicinal properties of selected herbs could be more thoroughly and scientifically examined and the possibility of their commercial production explored.

The Regional Development Commissioner authorised the first phase of study of herbal medicine in this region with the following objectives :

(a) To find out the extent of the popularity of this medicine in the rural area.

(b) Identify the common disease and their incidence.

(c) Collect information regarding the treatment of the diseases by the herbal system including the name and details of the herbs through which the diseases was treated.

(d) To prepare a list of practioners of the herbal medicine system and obtain a list of herbs commonly used by them.

Accordingly, this study was taken up by the Xavier Institute in Bano, Simdega and Bishunpur blocks of the Gumla district. Chandwa in Palamau district, and Manoharpur in Singhbhum district. One of the important reason for selection of these blocks was that XISS had information about concentration of social workers/practitioners of indigenous system of medicine in these area. Moreover, these blocks represented areas of concentration of different important tribes which could be helpful in finding out inter-tribe and inter-area differences in the use of medicinal herbs. The use of herbal medicine among the Munda and the Oraon tribes and to some extent among the Ho's has been studied. In all the five blocks two remote villages in each were selected except Bishunpur where four villages were studied because the population of two selected villages was very small. It was assumed that the more remote the tribal villages are, the greater is the likelihood of the dependence of the tribal population on the indigenous system of medicine partly because of greater familarity with the herbs and partly because of lack of availability of modern medical facilities. In all 12 villages were studied in five blocks; they are Hatinghore, Hurpa, Kathupani, Ambakona, Domarpara, Barpat, Gardag, Chiro, Terla, Undhan, Takka and Asanbera.

The study was made on the basis of detailed questionnaire which besides obtaining general information regarding family composition, marital status, edu-

cation levels and occupational characteristics of rural households, tried to obtain details about the diseases suffered and their frequency, the types of treatment including herbal treatment resorted to, the reasons for preference for one system over the other, the source of knowledge about the herbal medicine and the types of diseases for which the medicine was used, the practioner of herbal medicine consulted by the tribal people, the source of availability of the herbal medicine and difficulties if any encountered in procuring herbal medicine. All the families in the selected villages were covered by the survey.

Besides this, practioners of herbal medicine in the area were also interviewed for obtaining information about the medicinal herbs available in the area and the types of diseases for the treatment of which the herbs were being prescribed by them.

A few herbal medicines are part of the Ayurvedic system but there are many which have not yet been included in the Ayurvedic pharmacopoeia. The herbal system of medicine is being practised by trained Ayurvedic baidh and also by indigenous tribal doctors. The list of herbs prepared as a part of this study is, however, based mainly on two sources of information. One, the herbs in use in households surveyed and two, herbs prescribed by indigenous tribal doctors for treatment of various ailments.

The findings of the survey are being presented in the following chapters. In Chapter - II: the extent of the popularity of the herbal medicine in tribal rural areas has been brought out. We have found that the 40.31% of the surveyed households depend upon herbal medicine as compared to 56.62% on the Allopathy system. In Chapter-III

data regarding incidence of diseases prevalent in the tribal area and treatment resorted is presented. In Chapter IV, a list of herbs found in the area which are used by the people and/or prescribed by practitioners of herbal medicine is described. The last chapter contains conclusions and suggestions for development of herbal medicine system and for identification, preservation and propogation of medicine herbs of this region.

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CHAPTER - II

HERBAL, MEDICINE AND ITS USERS

Popularity of a system of medicine is only partly a result of its proved efficiency . To a considerable extent the use of a particular medicine by human groups is also influenced by socio-cultural factors like their belief system and the support of traditional authority, economic factors like level of income enjoyed by the people, physical factors like continued availability of medicines and the services of knowledgeable medicinemen. One of the important arguments in favour of herbal medicine is that being close to the tribal belief system, and being indigenous in source of its supply, the majority of the tribal people particularly in remote areas are still very much dependent upon herbal medicine and will continue to patronise it provided necessary steps are taken for its development and propagation. A factual study of popularity of herbal medicine in remote rural region of Chotanagpur was therefore undertaken not only for testing the validity of these assumptions but also to highlight the impact of a few dynamic factors in the situation, such as growing literacy and education, the changing attitudes of the youth and the impact of income on the preference for herbal medicine.

As a part of the study a total 913 households were surveyed in 12 villages of 5 blocks in three districts, that is Gumla, Palamau and Singhbhum. Out of total household, 624 that is 68.35% belonged to the S.T. and 136 that is 14.90% to the S.C., while 153 that is 16.75% belonged to other castes. Out of the 136 S.C. households as many as

111 were in Chandwa block of Palamau district, while in the remaining 4 blocks the percentage of S.C. household surveyed was less than 5% . In Bishunpur Block, where some of the most interior places in Jobhipat area of Netherhat Plateau was taken up for study, the S.T.s formed 96.48% of the total population. In the remaining 4 blocks also percentage of S.T. was nearly 2/3rd of the total population. Out of the total 624 tribal families in the study, 307 were Munda, 208 Oraon, 98 Kharia and 11 Ho. Generally Bano and Bishnupur blocks the Munda tribes, in Chandwa and Manoharpur blocks the Oraon tribes and in Simdega block the Kharia tribes predominated the surveyed villages (Table 1).

Of the total 913 households surveyed 400 households that is 43.48% were found to be professing Christianity, and 187 households i.e.e 20.48% were practicising Sarna religion, the Hindu households numbered 323 that is 35.38%. Muslim households were only 3 in number. Majority of the households in Bishunpur (88.11%) , Bano (53.79%) and Simdega (47.02%) villages were christians, in Chandwa villages were Hindus (69.46%) and in Monoharpur villages were Sarnas (50.82%) (Table 2).

The total population of the 913 household was 5,421 of which 2,758 were males and 2,663 were females. Of the total population only 4% were found to be above the age of 55, 55% were in the working age group of 15 to 55, the remaining 41% were below the age of 15 of which 13.84% were infants between 0-5. This age composition suggests

that the average longevity in tribal rural areas is not high (Table 3). Compared to general belief, most of the household were found to be nuclear rather than traditional joint families which numbered only 137 households that is 15% (Table 4). Of the total population, 3886 that is 71.68% were found to be illiterate. The literacy among the males was found to be higher at 35.75% as compared to 20.62% among the females. Considering the fact that the villages surveyed were remote villages, the level of literacy in the villages as compared to general literacy rate of 16% was found to be quite high. Out of the total male and female population respectively 16.28% males and 10.97% females had received education up to primary level, 7.22% males and 4.62% females up to middle level , 9.25% males and 4.09% females up to secondary level and only 3% males and 0.94% females had post matric education. Data regarding literacy and educational level were collected from the all household to establish a co-relation if any between level of education and the preference for the different systems of medicine including herbal medicine (Table 5).

Of the total 913 household, 818 or 89.59% reported cultivation as their primary occupation, 73 that is 7.99% as their secondary occupation. Thus 96% of the total households were directly or indirectly engaged in cultivation. A fairly large percentage of household depending upon cultivation as their primary occupation appeared to be dependent upon agriculture labour, casual or otherwise for supplementing their income. This is because the large percentage of cultivators were in the

category of marginal farmers and even those who had larger acreage got poor income out of their mono-cropped, low productive lands. Other occupations were not at all significant. 3.61% of the households depended upon service. Artisan household formed 3.61% and those depending upon business 1.09% (Table 6).

Data was collected regarding per capita and household income. The per household income in all the villages taken together amounted to Rs. 5346.88 which is much below the poverty line fixed at Rs. 6400/- . Interestingly, the range of household income varies from only Rs. 2,700/- in Bishunpur block to Rs. 6,442/- in Simdega block. In Bishunpur as mentioned earlier very remote villages in the Netarhat Plateau were surveyed. Clearly, the low level of per household income is an index of the abject poverty from which they suffer. Similarly, the per capita income also varies from Rs.422.40 in villages of Bishunpur block to Rs. 1134/- in Chandwa and Manoharpur Blocks. The purpose of obtaining income data was also to establish correlation if any between income levels of the households and their choice of treatment (Table 7).

The respondent families were asked to indicate their preferences for the different treatment system that are generally available in rural areas i.e., Homeopathic, Ayurvedic, Allopathic and Herbal. Out of the total 913 only one household responded in favour of Homeopathic treatment. In view of this insignificant response level, we could very well leave out Homeopathic system from the comparative

study of their preference for various types of treatment. Out of the remaining three system, the largest percentage, 517 families i.e., 56.62% were in favour of Allopathy followed by 368 families i.e., 40.31% favoured herbal medicine. The Ayurvedic system was favoured by only 27 families i.e. , barely 2,96% of the total households. Thus the real choice of rural households lies between herbal and allopathic systems of medicines (Table 8).

Communitywise preference :

Out of total 913 households, 624 belonged to schedule tribes. Among the S.T. households the majority i.e. , 338 or 54.17% favoured Allopathy while 265 i.e., 42. 47% opted for herbal medicines. Only 20 household i.e., 3.21% like Ayurvedic treatment and 1 household i.e., 0.16% favoured homeopathy. Thus the majority of tribal household were in favour of Allopathy, but more than 2/5th of the household had maintained their liking for herbal system. The scheduled castes household, however, were overwhelming in favour of allopathy as compared to herbal and other systems, 95 households out of a total of 136, i.e., 69,85% had preference for this system while only 38 i.e., 27.95% favoured herbal medicine and 3 families or 2.31% opted for Ayurvedic system. The preference of communities other than S.T. and S.C. was more or less similar to that of scheduled tribe households, 54.90% of these households preferred Allpathic treatment, 42.48% liked herbal and only 2.61% were in favour of Ayurvedic system (Table 8).

Thus although the popularity of the allopathy even in remote rural areas was clearly established, yet the hold of herbal system of medicine upon rural people, particularly the tribals was still strong enough to merit greater attention from policy makers and social workers.

Impact of Literacy :

Since herbal medicine system is, by and large, traditional and allopathy is considered a modern system requiring a level not merely of belief but of understanding also on the part of users literacy may play an important role in changing people's preferances from one system to another. All the household were classified according to their literacy ratios where unity (1)indicated that all the members of houschold were literate. On the basis of four fold literacy ratio ranges , it was found that out of the 537 families within the lowest literacy ratio of 0 to 0.25, the percentage of families indicating preference for allopathy was 52.70% and that for herbal medicine 44.13%. Out of 78 families having the highest level of literacy within the range of 0.76 to 1.00, the percentage of families favouring allopathy was as high as 71.79% and for herbal system as low as 25.64%. This establishes a direct relationship between the literacy level of the family and the preferance to use allopathy and an inverse relationship between the literacy level of thefamily and preferance to use herbal system. As the literacy ratio of the families increased from lowest level (0-0.25) to highest (0.76 - 1.0), the

percentage of families favouring to use allopathy linearly increased, while the percentage of families favouring to use herbal system sharply decreased (Table 9).

There is therefore a distinct possibility that with the spread of literacy and education in the rural areas, more and more people will be weaned away from the herbal system of medicine to the allopathic system. This is not surprising because herbal system is firmly rooted in tribal tradition. Education by loosening the hold of tradition on the minds of the people is also changing their attitude towards and preference for herbal system of medicine.

Even otherwise, there were relatively very few confirmed believers in a users of herbal system. Out of the 913 households, only 35 i.e., 3.83% got themselves treated always through the herbal system. On the other end of the scale 257 i.e. , 28.15% of the household never used herbal medicines. There were 130 households i.e., 14.24% who took recourse to the herbal system most of the time and 491 i.e., 53.78% sometimes or occasionally used these medicines. Thus if we lump together those households who always use herbal medicines and those who use it most of the times the percentage of household is no more than 18%. But if we put together those households who use this medicine most of the times and those who use it occasionally, their percentages is fairly significant, i.e. 68.02%(Table 10). Although the spread of education and literacy and greater availability of facilities for allopathic treatment has adversely

affected the popularity of herbal system, yet it cannot be said that the system has completely lost its ground.

Income level and Preference :

Income level of the households had also some bearing on their preference for various types of treatment. The households were classified in income categories of those above the poverty line of Rs. 6,400/- and those below it. The latter category was again subdivided into a) Upto Rs. 2,400/- destitutes , b) Rs. 2,400/- to Rs.3,600/- very very poor , c) Rs.3,600/- to Rs.4,800/- very poor, d)Rs.4,800/-to Rs.6,400/-poor. It was found that in the destitute, very very poor and very poor categories, the preferences were overshelming in favour of herbal medicine. Among the destitutes , 15.38% opted to use allopathic and 69.23% herbal, among the very very poor 29.01% opted to use allopathic and 70.23% herbal and that among the very poor , while 40.51% were in favour to use allopathic 55.06% opted to use herbal system. In category of poor households the preferences were evenly divided 54.81% for Allopathy and 43.21% for herbal medicine. But in the category of those above poverty line the preference was markedly in favour of Allopathy,79.63% showed their preference to use allopathy against 17.28% for herbal system. Thus there was a clear divide , the poorer section registered high dependency onhcherbal medicine and the richer section opted for allopathy (Table 11).

The households were asked to indicate their reasons

for prefering one system over others. Four reasons were suggested in the questionnaires, besides leaving scope for open ended answers also. These reasons were : easy access, effectiveness, cheapenss and tradition. It was found that the most important reasons for making choice of herbal medicine was easy accessibility and effectiveness. In matter of accessibility the herbal system scored over allopathy and the ayurvedic systems but in effectiveness the allopathic and ayurvedic system had slight an edge over herbal medicine. Surprisingly, the respondents did not give much importance either to cheapness or tradition. So far as cheapness is concerned the rank of allopathic and herbal medicine was more or less the same. This may be due to the fact that the allopathic medicines, at present commonly available in remote rural areas, are not the costly ones but the extremely cheap remedies for cold, cough, fever, diarrhoea and dysentry. In other words in assessing the relative merit of the two systems on the basis of cheapness, the respondents did not have a complete and full understanding of the cost of allopathic treatment (Table 12).

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CHAPTER - III

MORBIDITY AND TREATMENT IN TRIBAL AREAS

One of the deepest human urges is to remain healthy by protecting oneself against attack from diseases and when attacked get rid of them quickly. This urge has been one of the basic factor in discovery of effective remedies for once incurable diseases like tuberculosis and almost total erradication of mass killers like small pox. While the modern society with its access to scientific system of investigation and analysis has been able to push forward frontiers of medical knowledge, the tribal society has largely depended upon its traditional knowledge about tribal medicine, mainly based on medicinal herbs commonly found in the area for treatment of diseases generally prevalent in the area and for meeting contingencies such as snake and insect bites.

Tribal system of treatment is a strange mixture of magic and medicine, of faith in supernatural elements and in medicinal herbs. With spread of education and literacy and with greater facilities for availing modern medical treatment, 'the belief that diseases are caused by hostile spirit angered by violation of some taboos' does no longer have that dominant hold on the tribal mind that it used to have in the past. But this is not true of their faith in curative properties of herbs which is still unshaken. The first choice of tribal people is, if the herbs are available and the medicine man is around, to get themselves treated in the indigenous way.

Myth of healthy tribal still persists, although a number of field studies have challanged it by presenting empirical data to the contrary.[1] Perhaps, the myth was the result of physical isolation of remote tribal areas about which very little was known outside. But with the opening

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[1] Singh, A.K. (1987) : The Myth of the Healthy Tribal : Health Modernity in Two Rural Blocks of Chotanagpur, Bihar. Report on ICMR Task Force Health Modernity Education Project, Post Graduate Department of Psychology, Ranchi University.

of community development blocks and extension of medical facilities to remote areas, information regarding morbidity is now more readily and more adequately available. One of the objective of the present study was to obtain detailed household information regarding morbidity in remote tribal areas and to relate it to the system of treatment preferred by the people. The findings are presented in the following paragraphs.

The survey data has revealed valuable informations about morbidity in tribal areas. It was found that the most common diseases were malaria, cold and cough, fever, typhoid, diahrroea and dysentry. In the 913 households there were a total of 874 malarial attacks in a period of one year preceding the survey. This gives a very high frequency of malarial attack. It was also reported that in 514 cases (58.81%) the attack was fortnightly and in 263 (30.09%) cases weekly. This suggests that there are large numbers of acute and recent cases of malaria. The malarial cases are by and large being treated through allopathic medicines. In 669 cases i.e., 76.54% cases allopathic drugs were used, while in 321 cases i.e., 36.73% cases herbal medicines were used. Very small percentage of cases was treated by ayurvedic medicines (5.15%) and homeopathic medicines (1.49%).

Fevers again were found to be very common and here again the treatment undertaken was either allopathic or herbal. Out of 789 cases of fever 475 i.e., 60.20% were treated with allopathic medicines while 390 cases i.e.49.43% were treated through herbal and related system of medicines. Those cases getting treated by ayurvedic were 7.86% and by

homeopathic 1.27%. Frequently the duration of fever continued up to one week or fortnight.

The total number of attacks of cold and cough were reported to be 815. In most cases, the sufferings continued up to one week. Almost equal number of cases were treated by allopathic and herbal systems. While allopathic medicine were used in 436 (53.50%) cases, herbal medicines were used in 432 (53.01%) cases. As usual ayurvedic and homeopathic medicines were used in insignificant number of cases. Typhoid cases were reported to number 80. Out of that 57 cases were treated by allopathic and 8 cases were treated by ayurvedic medicines. In comparison to these, 29 cases were treated through herbal medicines. In respect of typhoid cases, however one can not be sure whether such reported cases were actually typhoid cases or some other types of fever in view of poor diagnostic facilities available in remote areas.

Diseases related to abdominal diorders like diahrroea and dysentry are also very common. The sufferings from these in most cases continued up to one week. Out of the total 452 reported cases the largest number that is 318 (70.35%) were treated through herbal medicines. Compared to this allopathic medicines were used in 185 (40.93%) cases. Another 26 cases were treated through ayurvedic and hoemopathic medicines. When a particular method of treatment failed to cure a disease, in few cases the households took recourse to other methods of treatment. By and large, in treatment of most common diseases predominantly allopathic medicines were used followed by herbal medicines.

One of the important reason for prevalence of intestinal diseases in remote rural areas is the lack of safe drinking water. The situation is likely to improve with the

installation of hand pumps. But where this facility is not available, people have to depand upon unsafe, unhygenic sources like river water, wells, dari chuas and nallahs and therefore incidence of such disorders is high.

The respondents reported a number of other chronic ailments. These include diseases related to swelling and weakness of joints covered under a generic term 'langhan' which may cover rheumatism, gout, arthritis and even Paralysis. Several cases of skin infection including dry or rough skin, chronic scabies, itches and eczema were also reported (Table 13, 14 & 15).

Diseases caused by malnurition such as anaemia and night blindness are also common. So also are cases of liver disorders such as jaundice, perhaps, caused by addition to drinks. The income data collected through this study has clearly established a state of abject povery and destitution possibly on account of occasional starvation among the tribal households in the Netarhat belt and the prevalence of malnutrition, the low level of resistance to infection and subjection to deficiency diseases are not at all surprising. A study of two relatively urbanised blocks - Kanke and Namkum - by Deptt. of Psychology, Ranchi University has revealed that 44% of children of these two blocks were suffering from severe malnutrition. This study has also reported that about 29% of the families had some kind of illness or disability at the time of survey. About 10% of families had some kind of eye-ailments, about 7% had physical disability and 3% had Chronic illnesses.[2] If this is the condition in blocks on the urban fringe, the condition in remote rural areas can very well be imagined.

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[2] Ibid

SOURCES OF KNOWLEDGE ABOUT HERBAL MEDICINES : -

Out of the total 913 households, 765 i.e. 83.79% of the households did not have their own knowledge about herbal medicines. Among 149 i.e, 16.32% households possessing knowledge of herbal medicine, the sources of such knowledge were identified as parents, relatives, friends and others. In many households there w ere multiple sources of knowledge. The main source of the information about herbal medicines were relatives (62.41%), friends (59.06%), parents (26.84%) and others (47.65%). Thus in these households the source of knowledge about herbal medicine was, by and large, limited to a small circle of family, friends and kinship groups. The majority of the households i.e. 83.79% were totally dependent upon tribal medicine men and other outside sources (Table 16).

PROCUREMENT OF HERBAL MEDICINE

The respondents reported two main source for procurement of herbal medicines. These were Ojha/Baidh and the forest. Generally, when a tribal family consults a practitioner in herbal medicines it gets the supply of necessary herbs from him. Or in some cases he is helped to identify the herbs and asked to get it from the nearby forest. Thus out of the total number of households using herbal medicine. 86.89% reported getting the supplies from the Baidh and 82.46% to have procured it from the forest. In very few cases, the herbs were cultivated in the backyard at home (4.72%) or were procured from the grocer/of the Hat (Table 17).

The households mentioned several difficulties in procuring herbal medicine. The main difficulty was lack

of knowledge about the herbs for treatment of particular diseases. Another difficulty was that those herbs which where earlier found to be growing wild not very far from their houses are now not readily traceable. Therefore, they felt that if the important herbs were cultivated in the back-yards of their home, these difficulties in procurement of right herbs to a large extent to be reduced. Very small percentage of respondents reported about restrictions on the collection of herbs from the forest. Since the number of such respondents forms a very in significant percentage, restriction on collection of herbs from the forest does not appear to be an important reason. The task of procuring medicinal herbs is now exclusively performed by the older members of the family because the younger generation is disinterested in this system and is reluctant to take pain to know this herbs and procure them. Thus lack of interest, lack of knowledge of herbs and also lack of ready availability near home are some of the principal reason for the decline in the use of herbal medicines (Table 18).

To sum up, the nature and extent of morbidity revealed by household data should be a matter for concern on two counts. First, the extent of morbidity is fairly high in remote rural areas where at the time of survey almost each families had some illness to report. This is partly due to poverty and partly due to insanitary condition of rural living. Secondly, the high incidence of malaria also deserves immediate attention both from the preventive and curative angles. The fact remains that a fairly significant percentage of households depend upon medicinal herbs for treatment of acute and chronic illness, either on the basis of their own knowledge or with advice and guidance from tribal medicine men.

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CHAPTER - IV

MEDICINAL HERBS OF CHOTANAGPUR

Knowledge about medicinal herbs is now confined to a few genuine tribal medicine men and to a few tribal families in remote rural areas of the region. With the spread of education and increased access to modern medical facilities, it is only a matter of time that hereditary knowledge of herbs at present treasured with tribal families will be lost for ever. The tribal medicine men who are trying hard to keep the tribal indigenous healing system alive have knowledge about these herbs but are finding it difficult to maintain their source of supply because of large scale destruction of forest. With the extinction of source of indigenous supply, it is apprehended that knowledge about herbs would also dry up.

Some European, including scientists, administrators and missionaries who came in intimate contact with the tribal people of this region were fully aware of the value of medicinal herbs. In some of their works, we find direct or indirect references to these herbs and their uses for treatment of ailments of tribal people. Mention may be made of studies in Santhal medicine by Rev. P.O. Bodding in which list of herbs used by Santhals has been meticulously compiled. In Part I of his work 'studies in Santhal medicine and connected folklore', we get comprehensive information about Santhals and their diseases and in Part II a list of medicine for their treatment. In his monumental work Encyclopaedia Mundarica, Rev. J. Hoffman s.j. has mentioned that Mundas consumed 46 specimens of Tuber/Corm/Roots as vegetables of which only 20 were

cultivated. They used 114 specimens as pol herb of which 71 were wild, 15 were cultivated for this purpose while 28 cultivated for other purposes. These were also 25 specimens whose flowers were used as vegetables. Similarly, Rev.J. Bressers s.j. in his work on Bontany of Ranchi district identified 280 plants of Ranchi district, many of them being used for preparation of medicines by tribal people. Another work of importance is Plants of Chutia Nagpur in which plants and herbs with their botanical names had been systematically listed by Lt.Col. J.J. Wood, IMS(Retd) towards the end of the last century. Mention may also be made of studies conducted by the Bihar Tribal Research Institute of tribe wise diseases and remedies particularly that of Birjia and Asur Tribes by Dr. S.P. Gupta.

In recent years, there has been a revival of interest in tribal medicine partly on account of efforts of anthropologists and Social activists interested in the study of tribal way and preservation of its values and identity and partly because of interest of some Christian missionary groups in revival of herbal medicine as a part of their effort towards developing a less costly but effective medicine system for poor tribal groups living in remote rural areas. In some cases, study and practice of herbal medicine has been mdae a part of the syllab: for training of not only their rural health workers but also of their religious orders. This has promoted vigorous efforts towards collection of information from various sources and their compilation for training and research purposes.

In this connection mention may be made of Regional Research and Study Centre, Midnapur, West Bengal, who in their report on evaluation, experimentation and production of tribal medicine, have compiled a list of herbs found in tribal areas of W.Bengal, Orissa and Bihar, indicating the local and botanical names of the herbs, the name of tribes using them and the various diseases for which the medicines have been found to be efficacious. A list of such herbs available in Bihar, culled from this report may be seen in Appendix I.

However, as a part of the present study tribal medicin men of the areas surveyed were contacted to get informations about the various herbs prescribed by them. So also information were obtained from tribal household who still possess hereditary knowledge about medicinal herbs.

Although mainly based on herbs, the tribal medicinal system also makes liberal use of items of animal origin like tigers tongue, elephants stool, dogs urine, ants, spiders squirrels, reptiles, fat of different animals and birds including pigs and peacocks. These items are used independ-ently or in combination with medicinal herbs. Since the focus of the study is on medicinal herbs and their availabil-ity and not on tribal medicine system as such, only medicinal herbs have been listed and not the complete prescription for various diseases which in many cases include item of animal organs also. But the herbs in this study include trees also whose roots, bark, leaves, and flowers have medicinal properties.

Some of the tribal medicine men of this area claim to possess knowledge about herbs which can cure diseases like cancer which still pose a challenge to the modern medicine system. For instance, Fr. Gabriel Hembrom of village Hatinghore, District Gumla claimed to have cured all forms of ulceration including cancer through the use of bark of 'Saind' tree. He also mentioned Dhawai tree whose flowers and bark were very efficacious in the treatment of bone T.B. and cancer. Similarly, roots of Akwan and of Munga (Drumstick) were useful in treatment of lung and abdominal T.B. It is surprising that the tribal system of medicine has effective cure not only for common ailments like cough and cold, fever including malaria, diarrhoea and dysentry but also for serious diseases such as cancer, T.B., diabetes, gout and arthritis and hypertension. However, the claim of the tribal doctor is subject to verification through intensive scientific tests and extensive field trials. Even if these claims are ultimately found to be partially true, a strong case will be made not only for wider dissemination of information about the herbs but also for steps for preservation and propogation of specimens.

Some of the herbs used in the tribal system of medicine are also mentioned in the ayurvedic system. In fact, some tribal medicine men not only regularly prescribe ayurvedic oriented herbal medicine but have diligently acquired fair knowledge of ayurvedic medicine through study, training and experience. On the other hand,some

ayurvedic physicians practicing in remote rural areas also prescribe herbal medicines which legitimately belong to the tribal system and have not yet been formally adopted by the ayurvedic system. There is, perhaps, no harm in this mutual give and take provided it brings relief to the sufferers.

There are four appendices to the chapter. Appendix I is the test of herbs mentioned in the report on Tribal medicine by Regional Research and Study Centre, Midnapur, West Bengal. Appendix II includes the names of herbs disclosed by heads of tribal household which are being used for home treatment of several ailments. This appendix gives complete recipes for treatment of specific diseases. Appendix III contains a list of herbs being used by some of tribal medicine men in this regions. Appendix IV includes list of medicinal herbs used by the tribal people, which forms part of paper on Tribal Medicare by M. K. Jha published in Wasteland New, Aug- Oct. 19[illegible]. No wonder, some remedies are common to all the four list and also these list contain names of herbs which are part of ayurvedic system. However, there are a few herbs in these lists whose medicinal properties have not been scientifically investigated but whose efficacy is widely accepted by the patients, mostly tribals but in some cases non-tribals also.

PRACTITIONERS OF HERBAL MEDICINES SYSTEM :

Unlike practitioners of Allopathy, Ayurvedic and Hoemopathic system who after obtaining medical degrees are duly registered for practising their system, the herbal medicine men are neither formally trained nor registered for private practice. It is therefore not easy to prepare a list of herbal medicine practitioners as it is in case of practitioners of other system. This survey was conducted in only a few selected villages of Singhbhum, Gumla and Palamau district. In the course of survey, we came in contact with several medicine men who not only possessed knowledge about herbal medicine but were also regularly practising it. From these practitioners, we came to learn about other practitioners in the same or the other districts. According to our information and assessment there are two herbal medical practioners who can be said to be a the leading men in their field both on account of their extensive knowledge of herbs and also because of their reputation as practitioners. One of them is Fr. Gabriel Hamrom of village Hantinghora district, Ranchi, the other is Shri P.P. Hamrom of Paharia Samaj Seva Kendra, village Sathiya, P.O. Litipara, district Sahebgunj. Besides Fr. Gabriel Hamrom, Mr. Joseph Bhuiya is also a practitioner of repute in the same area that is Hatinghora in Gumla district, Joseph Kundulna of village Doldahi P.O. Porobanki, Peter Hamrom of village Gorra are also well known. At Chandawa of Palamau District, we came in contact with Mr. C. Nag who had systematically compiled a list of diseases and the herbs which can cure them. He is regularly practising at St. Annes Dispensary, Chandwa. In Singhbhum district. Shri Francies Munda is practicing at Bandgaon and Robert Purti at village Chickubera of the same block.

Fr. Gabriel Hamrom of Hatinghora and Shri P.D. Hamrom of Litipara, Sahabgunj are deeply involved with the movement for preserving the tribal system of medicines through education, training and research, besides practising medicines themselves. Fr. Hemrom is associated with St. Augustine college at Mahoharpur, Singhbhum has its faculty on a course in which Christian health workers are given regular training in diagnosis of diseases, identification of herbs and prescription of herbal medicines, Shri P.P.Hemrom, Litipara, Sahebgunj is involved in popularisation of tribal medicines including reservation conservation and rehabilitation of medicinal plants. He is associated with Tribal Medicine Research Centre at village Satiya and another centre at village Barkitoli, P.O. Mahesh Munda, District Giridih where the Research in tribal medicines is being conducted. He publishes booklets in Hindi on'Horopathy' which provides information on treatment of various diseases through herbs.

A list of 33 village health workers trained in practise of tribal medicine and practising in village/parishes appended to this chapter indicates not only the growing interest but also positive steps being taken by certain organisations for popularisation of herbal system of medicine. Sister Jaycinta of St. Anna is active in maintaining liaison with village health workers and co-ordinating their activities in remote rural area. A manual on common diseases and their treatment through herbal medicine has been prepared by her organisation and is used by the field health workers. Other social workers active in the field of herbal medicine who deserve mention are Mr. Vincent Barla and Sr. Marcel of Chandwa, Ms. Emilia Kiro of St. Anne's Health Cnetre, Banki (Gumla district) and Fr. A. Minz and Miss Lata Ekka of Bishop's house, Ranchi.

Despite the laudable offer by Christian Missionery organisations in popularising herbal system of medicine and dedicated activities of committed persons like Fr. Gabriel Hamrom and Mr. P.P. Hamrom, the fact remains that the herbal system of medicines is still popular only in small remote pockets of the tribal region of Bihar. The survey has brought out the fact that the herbal system of medicine is losing its ground wherever education has spread and wherever modern medical facilities have become available. The danger is with the loss of interest in herbal system of medicine, many herbs of immense value may also be lost on account of disuse and lack of knowledge. To avoid this possibility it is necessary to take planned efforts for identification of important herbs and their preservation, conservation and development besides taking steps for popularising herbal medicines.

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MEDICINAL HERBS IN BIHAR

APPENDIX - I

(Extract from a Report prepared by Regional Research & Study Centre Midhnapur (WB)

Sl.No.	Scientific Name	Local Name	Tribe	Area	Diseases
1.	Rauwolfa serpentina	Araba	Munda	Bihar	Leprosy, Tuberculosis, Fever, Blood dysentry, diarrhoea, Snake bites
2.	Achyrynthes aspra	Apang	Santhal	Bihar	Abortion, Dysentry, Dhatu, Epilepsy, Menstrual disorder Post burn, Otitis.
3.	Smilax Macrophylla	Atkir	Santhal	Bihar	Cancer Jaundice, Head ache, Anaemia, Typhoid, Oedema, Punemonia
4.	Pongamia pinnate	Koronj	Munda	Bihar	Paralysis, Scabies, Eczema, Leprosy, Pox.
5.	Bassia Latefolia	Mohua	Munda	Bihar	Filaria, Dhatu, Dysentry, Pain abdomen, Birth control.
6.	Boerhavia diffuse	Khapra	Santhal	Bihar	Vomiting, Diarrhoea, Dhatua, Labour pain, Dog bite Menstrual disorder.
7.	Zizyplus oenopila	Kul	Lohar	Bihar	Phychological disorder, Dhatu, Head ache, Throat pain, Acidity.
8.	Calotropia Giganes	Orkho	Ho	Bihar	Tuberculosis

(Contd...2)

Sl. No.	Scientific Name	Local Name	Tribe	Area	Diseases
9.	Dendropthae faicata	Begnamadant	Ho	Bihar	Snake bites, Abortion, Birth control.
10.	Coccinia grandis	Kundru	Munda	Bihar	Dhatu, head ache, Sterility Menstrual disorder, Diarrhoea
11.	Schleichera trijuga	Kusum	Munda	Bihar	Bone injury, Typhoid, Eye ache, Paralysis, Jaundice, Scabies, Pox, Tetanus
12.	Terminalia Chebula	Rola	Munda	Bihar	Fever, Acidity, Worm
13.	Eriodendron anfractuosum	Shetsimul	Tanti	Bihar	Dhatu, Menstrul disorder, Blood dysentry, Diarrhoea
14.	Diospyros embryopteris	Makorkenda	Ho	Bihar	Dog bite, Diarrhoea, Dysentry Blood dysentry, Jaundice, Pain abdomen
15.	Salmalia Malabericum	Lalsimul	Tanti	Bihar	Menstrual disorder, Pain abdomen , Pox, Cholera.
16.	Shorea robusta	Sal	Santhal	Bihar	Dysentry, Blood dysentry, Rangbat, Menstrual disorder Dhatu.
17.	Mucuna pruita	Alkhusy	Tanti	Bihar	Typhoid, Asthma , Dog bite, Leprosy, Filaria.

(Contd...3)

Sl. No.	Scientific Name	Local Name	Tribe	Area	Diseases
18.	Stephenia hernandifolia	Pitusingh	Munda	Bihar	Birth control, Pain abdomen, Fever, Head ache, Colic pain, Malaria, Leprosy.
19.	Scoparia dulcis	Chinnibuta	Santhal	Bihar	Jaundice
20.	Tryphonium trilobatium	Nirbish	Lohar	Bihar	Dog bite, Cancer, Filaria, Snake bites, Whitlow.
21.	Antidesma diandram	Mathal	Santhal	Bihar	Dhatu, Eclampsia, Filaria, Rheumatoid, Otitis.
22.	Spondias ensquifera	Amrha	Munda	Bihar	Diarrhoea, Blood dysentry, Dhatu, Dysentry, Orchitis.
23.	Calastrus paniculata	Gurhdhain	Munda	Bihar	Fever.
24.	Moringa Oleifera	Sajna	Ho	Bihar	Snake bites, Migraine, Head ache.
25.	Butea monospora	Palash	Tanti	Bihar	Fever, Dhatu, Tuberculosis, Pain abdomen, Asthma, Worm, Menstrual disorder, Mumps , Sterility.
26.	Argamone mexicama	Sialkanta	Santhal	Bihar	Whitlow
27.	Cassia fistual	Harisingh	Munda	Bihar	Worm, Otitis, Blood dysentry, Dysentry, Dhatu, Bone Injury, Gonorrohea.

(Contd...4)

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Sl. No.	Scientific Name	Local Name	Tribe	Area	Diseases
28.	Ichnacarpus frutiscens	Dadhilota	Munda	Bihar	Fever, Gonorrohea, Paralysis, Eye ache, Menstrual disorder.
29.	Emslica officinais	Ongrha	Munda	Bihar	Tetanus, Menstrual disorder, Gonorrohea.
30.	Urqinea steinh	Birplanz	Munda	Bihar	Fever, Rheumatoid.
31.	Trichossanthes cordate	Patalkumra	Tanti	Bihar	Jaundice, Oedema, Tuberculosis, Dhatu.
32.	Stryphnos nuxvomoica	Kuchila	Lohar	Bihar	Cancer, Malaria, Oedema, Leprosy, Rheumatoid.
33.	Soyamida febrifuge	Ruhini	Santhal	Bihar	Fever, Diarrhoea, Tuberculosis Asthma.
34.	Oroxylum indicum	Hantipajar	Ho	Bihar	Fever, Leprosy, Paralysis, Rangbad, Rheumatoid.
35.	Buchanania latifoli	Tarak	Pan	Bihar	Blood dysentry.
36.	Clerodendron viscosum	Changer	Santhal	Bihar	Snake bites, Asthma.
37.	Viscum articulatum	Katkutjaung	Santhal	Bihar	Menstrual disorder, Malaria,
38.	Bauhinia Vahili	Sisry	Munda	Bihar	Blood dysentry, Snake bites, Sterility, Piles.
39.	Sida cordifolia	Narichirch-ira	Santhal	Bihar	Malaria, Mumps.

(Contd...5)

Sl. No.	Scientific Name	Local Name	Tribe	Area	Diseases
40.	Boswalla sarrate	Agnijhar	Munda	Bihar	Birth control, Fever, Pain Abdomen, Diarrohea, Tuber-culosis, Blood dysentry.
41.	Urenea Lsabate	Mirhilata	Lohar	Bihar	Filaria.

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APPENDIX-II LIST OF HERBAL MEDICINES IN USE IN TRIBAL HOUSEHOLD

Sl. No.	Name of the Herbal Plant	Parts	Uses/Purposes	Preparation Methods for different diseases	Dosage Adult	Dosage Child	Frequency
1.	Bhuineam	Branch & Leaves	Malaria	1. Grind it	1 spoon	½ spoon	3
			Malaria Indigestion Fever	2. Two tola Bhuineam & 2 glass water. Boil it	½ spoon cup 2-3	2-3 "	14
				1. Grind branches & leaves	1 cup	½ cup	2
				2. Boil in water	1 glass	½ glass	3
				1. Boil it	1 cup	½ cup	1
				Same	½ cup		
2.	Chitawar		Fever	1. Soak with hot Chitawar			3
				2. Grind it and make it for drinking	½ cup	¼ cup	5
3.	Amatchingary		Malaria	1. Grind it	1 cup	1 cup	
				2. Chew it	1 cup	1 cup	
4.	Charka P iyjaj		Snake bite	Cut it and apply	1onion	1 onion	
5.	Bhuin Chappa &		Cold & Cough	Boil all the herbs and make it for doses	3 spoon	½ spoon	1
6.	Bhuin Chappa, Kujri root Ghate roots, Honey		Rangbad	Mix all those things	3 doses	1	
7.	Badka Lilfond	ROOT	Typhoid	1. Grind and make it for drinking	3 spoon	½ spoon	1
	Hathi root, Raijam	BARK		2. Sometime apply on the body			
	Rak & fond	ROOT					
8.	Sankat marbar	-	Flu	1. Grind it	5-10 According to age	3-5	
9.	Ialtamrous	-	1. Dysentry	1. Grind it	3 spoon	½ spoon	
			2. Waist Pain	2. rind it	3 spoon	½ spoon	
10.	Sanpmutyu	-	Flu	1. Grind it	5-10 According to age	3-5	

Sl. No.	Name of the Herbal Plants	Parts	Uses/Purposes	Preparation methods for different diseases	Dosage Adult	Dosage Child	Frequency
11.	Putri, Sakhawa, Ghate & Gandhi	Bark	Malaria	Boil all the herbs	3 spoon	½ spoon	1
12.	Fenti Daur	-	Dysentry	Already prepared (Precaution : Only for adult)	-	-	1
13.	Sal Boekh	-	1.Blood Dysentry 2.Dysentry	Grind it Grind it	½ cup 1 cup	¼ cup ½ cup	2 1
14.	Chitchiti jadi	-	1.Heade ache	Grind it and apply in the forehead			1
15.	Sankat marbar	-	Flu	Grind it	5-10 According to age	3-5	
16.	Jangli Parhu	-	Fever	Grind and make it	-	-	1
17.	Tea	-	Diarrhoea	Boil it	-	-	1
18.	Samhale kand & Rampowan Lorang	-	Diarrohoea	Grind and it is ready	½ cup	½ cup	1
19.	Charwa	Flower	Malaria	Grind and Sieve it Ready for drinking	½ cup	¼ cup	1
20.	Mango	Seed	Diarrhoea	Grind it and make it power	1 spoon	½ spoon	11
21.	Birni Grass		Headaches	Grind it and burn, rub on forehead	-	-	-
22.	Jangli Urad		Diarrhoea	Separate urad from its outer cover and then grind it and make it ready for drinking			
23.	Turmeric, Urad, Black pepper (5)		Massa	Grind all herbs and apply	-	-	-
24.	Bamboo leaves	Leaves	Worm in stomach	Boil it	1 cup	-	1
25.	Jangli piaj	-	Budki	Grind it and apply	1 cup	½ cup	8

Sl. No.	Name of the herbal plants	Parts	Uses/Purposes	Preparation methods for different diseases	Dosage Adult	Dosage Child	Frequency
26.	Tulsi, Neem & Chakwar	Leaves	Malaria	Grind it	1 cup	½ cup	8
27.	Sehayar	Root	Dysentry	Grind it	1 cup	½ cup	6
28.	Leaf of Pipal, Mando, Blackberry & Amda	Leaves	Diarrhoea	Grind it and mix some sugar	½ cup	½ cup	1
29.	Leaves of Basil, Neem & Chakwar	Leaves	Malaria	Grind it	1 cup	½ cup	5
30	Mahuwa , Banda or Kae Chrupa	-	Falaria	Boil all things	-	-	1
31.	Rutry	Root	Fever	20gm Rutry herb and two cup of water, Grind it	1 cup	½ cup	8
32.	Bhuin Chapa	Root	1.Rangbad 2.Fever 3.Dysentry	Grind it with fat of Pig Grind it Grind it and mix with molases	1 spoon 1 spoon 1 spoon	½ spoon ½ spoon ½ spoon	1 2 2
33.	Lewang (one tola) Elaichy (5-6) Big Elaichy Ginger (One Chatak)		Asthama	All things are mixed Then 250 gm pure ghee of cow is mixed. Make tablets to 1 cm. diameter	1 tola morning and night	½ tablet morning and hight	1
34.	Chetor herbs, Chatawar and Karanj seed		Malaria	Grind it	1 spoon	½ spoon	1
35.	Semkta, Chraygoda Munka	BARK	Malaria	Grind it - Give juice	1 spoon two times	½ spoon two times	1
36.	Karanj oil		Pimples, Boils, cough	M ix karanj oil and apply water /Mix with tobacco			2

Sl. No.	Name of the herbal Plants	Parts	Uses/Purposes	Preparation methods for different diseases	Dosage Adult	Dosage Child	Frequency
37.	Bhuin Chappa & Charai-gora	Root	Toe pain	20-25 gm root of Khuinch apa and 10-12 gm root of Charaigora with pig fat is cooked	Apply on toes		1
38.	Japrana		Chapka	Grind it			
39.	Egg & oil of (Kunry) Kujur (5 drops of oil		Patha	Mix both	5 drop	3 drop	1
40.	Ranu & Honey		Dysentry Blood Dysentry	Mix both Mix both	5 spoon 5 spoon	3 spoon	1 2
41.	Sinduwar & Mango tree Bark		Blood Dysentry	Grind it	1 cup	½ cup	
42.	Black Berry	Fruits bark	Dysentry Tooth ache	Juice of Black berry fruit	1 cup	½ cup	1
43.	Vechhuwa Chakle		Chichina	Apply with oil			
44.	Pulder, Gandhak & Chirchiti	Root	Chhita	Grind oil	2 spoon	1 spoon	
45.	Neem	Leaves	Khasuwa	Boil it, Wash Khaswa from boil neem water and drink also			
46.	Simal	Bark	Malaria Dysentry	Grind 100 gm of Simal bark with sugar or misri - do -	1 cup 1 cup	½ cup ½ cup	1 5
47.	Red Erind	Bark	Typhoid(Disa) (Kalajar)	Grind 250gm bark with 250gm molases, Sieve it and then use	½ cup	¼ cup	1
48.	White Chirchiti	Leaves	Night Blindness	Extract juice from white chirchiti leaves and apply in and around the eye	-	-	3

Sl. No.	Name of the Herbal plant	Part	Uses/purposes	Preparation methods. for different diseases	Dosage Adult	Dosage Child	Frequency
49.	Masi Kanda	-	Ratondhi	Peel the Kanda, slice into thin pieces and then fry it in ghee. Use this ghee in eyes	-	-	1
50.	Jangli ol		Ear ache	Grind and sieve it in a cloth piece	3(twice a day)		2
51.	Sinduar	Root	White spot (Safed spot)	Grind the root and apply			1
52.	Ghiu Kumari		Headache	Cut the Ghiukumari and apply juice around the forehead			2
53.	Thudrya Flower, gur and Ranu	Flower	Dysentry	Grind it	1 cup	½ cup	1
54.	Jayfer	Fruit	1.Cold & cough	Make powder of Jayfer and mix with a cup of water	1 cup	½ cup	2
			2.Chest pain	- do -	1 cup	½ cup	2
55.	Delkata		Fever	Mix with Golmirch	1 inch	½ inch	1
56.	Koriyo		Fever				1
57.	Mango tree bark Black berry	Bark	Blood dysentry	Grind both of it together	According to age ½ glass		3
58.	Bandh, Gethia ban & Khandhaw	Root	Diarrhoea	Grind all together and make tablets			1
59.	Parhe & Dudhia	Root of both herbs	Fever	Parhe should be and dudhia should be grinded with water			1
60.	Banshy (lare)& Ray pan	-	Diarrhoea	Mix both	1 cup	½ cup	1

Sl. No.	Name of the herbal medicine	Parts	Uses/purposes	Preparation methods different diseases	Dosage		Frequency
					Adult	Child	
61.	Mahadeva lat	-	Fever	Grind it	1 cup	½ cup	1
62.	Murahi	-	Head ache	Grind it and apply on forehead	-	-	1
63.	Blackberry & Mahua dori	Fruit juice	Dysentry	Grind Mahuwa dori with blackberry juice	1-cup	½ cup	1
64.	Duck's blood	-	Stomach disease	Drink hot blood of duck	-	-	1
65.	Sirbari -7 inch Gohmirch- 7	-	Snake bite	Grind both herbs and drink it	-	-	1
66.	Pig fat (at least 40-50 yrs age)		Epilepsy	Apply it on body and allow him to sit in sun till sweating	4 - 5 days		1
67.	Faksa & Kundri		Paralysis	Grind both and cook in mustard oil, than message with it			1
68.	Latarpari		Fever	Burn and grind it	1 spoon	½ spoon	
69.	Putri, Chirhity, Lilkat &Koynar	Root	Fever	Grind it	½ cup	½ cup	
70.	Phuli daru, Juice of root of blackberry tree	Root of blackberry	Diarrhoea Dysentry	Mix blackberry's root juice with Phuli Daru	1cup	-	1
71.	Chitorjudh	-	Malaria	Grind and give for drinking	1 cup	-	1
72.	Satgaty, Chargora & Pig fat		Puny disease of children	15-20 gm satgaty, 20-25 gm. chargoda, 20-25gm. pig fat. Grind all these things and cook	Massage twice a day		1
73.	Badka Chakod, Safad patick, & Kulthi	Root Root	Fever	Mix all these things and tie it on throat	-	-	1

Sl. No.	Name of the herbal medicine	Parts	Uses/Purposes	Preparation methods of different diseases	Dosage Adult	Dosage Child	Frequency
74.	Aintha root, Padka Parhi, Hanswadati root, Barmi root, Chirchiti root, Kandmai root & Erandi	Roots	Stomach pain	Mix and grind all these things. Give it to eat with Ranu	7	Little	1
75.	Amba Sindrial Bakla	-	Diarrhoea		(Precaution) Only for Adult		
76.	Dudhia	Roots	Diarrhoea	Grind and mix with misri	1 spoon	½ spoon	1
77.	Chirrada ful	Flower	Fever	Grind it	1 cup	½ cup	2
78.	Gandi Ped		Typhoid	Rub bark of it	-	-	1
79.	Mango tree, Rath ash	Bark	Dysentry	Mix it	1 cup	½ cup	2
80.	Ginger bark		Wound	Grind and apply it	-	-	1
81.	Parhi herbs	-	Fever	Grind it	1 cup	½ cup	2
82.	Duwant gur	-	Blood Dysentry	Grind it	-	-	2
83.	Tirew	-	Blood Dysentry	Grind it	-	-	2
84.	Jahajee Khokhi	-	Typhoid	Dry and grind it	-	-	2
85.	Dhanbaher	Root	Typhoid	Grind it	1-2 drop	-	2
86.	Boriyary	-	Diarrhoea	Grind and mix with gur	-	-	4
87.	Menjur Chundi	-	Vomiting	Melt with gur and give it for drinking	-	-	1
88.	Bhuichapa & Pathaparhi	-	Fever	Grind it and give it for drinking	-	-	2
89.	Bhuin Pade, Bedwa Kanda	-	Dysentry	Grind it	1 cup	½ cup	3

Sl. No.	Name of the Herbal medicine	Parts	Uses/Purposes.	Preparation methods for different diseases	Dosage Adult	Dosage Child	Frequency
90.	Bal Pata	-	Headache	Grind it and apply on forehead	-	-	2
91.	Patha Parhi	-	Fever	Grind it	1 spoon	1 spoon	1
92.	Patihadi	Root	Loose motion	Grind it	-	-	1
93.	Charka Pati	Root	Malaria	Grind the root and extract juice	(Precaution only for Adult)		1
94.	Jangli Parha, Pathal Chutu Jehla	Root Root	Stomach pain	Grind all the herbs with water	1 glass	½ glass	1
95.	Arthi herbs	Root	Stomach pain	Grind the root	1 cup	½ cup	1
96.	Manga (Red Mango)	Bark Green Mango Fruit	Loo	Grind the root with water and lime. Mix mango with sugar and give for drinking	1 cup	½ cup	1
97.	Jira lemon	-	Gastric	Soak jira in lemon juice and let it be dry. Repeat it 3-4 times. Give it with lala namak.	1 spoon	1 spoon	1
98.	Agina	Root	Wound	Soak root and grind it. Then apply	-	-	1
99.	Onion	-	Charm rag	Cut the onion and apply around the affectd place	-	-	1
100.	Seed of Nadi Jamun	Seed	Daibetas	Grind the seeds and take it with a cup of water	-	-	1
101.	Mango tree, Black berry, Amdo & Simal	Bark	Dysentry	Two gm. of all things should be grinded with a cup of water	1 cup	½ cup	2

Sl. No.	Name of the herbal plants	Parts	Uses/Purposes	Preparation methods for different diseases	Dosage(specify) Adult	Dosage(specify) Child	Frequency
102.	Dasage + Tamator	Deam	Falaria	Grind it and eat	-	-	2
103.	Bhasa Ka Fruit	Fruit	Cough	Burn and massage from it	-	-	2
104.	Gur Sekary +Gud/	-	Dysentry	Grind and give for drink	1 cup	½ cup	2
105.	Chirchite + Buda +Kanjhilasa	/Root	Dysentry	Grind root with gur	-	-	2
106.	i)Azya ii)Azya flower (3) + Saygudy(2) + Karanj Oil	-	Rangbad	Burn the herb and make powder Mix with Karanj oil Mix it and apply	Morning	Night	1
107.	Small leafs of Papaya + Berk of Mango tree + Bark of Black berry of tree	/Leafs Berk Amdo Berk	Diarrhoea	Grind 100 gms of all herbs with sugar	½ cup (three times in a day)	¼ cup	1
108.	Root of Jangli Kulthi+ Saegodown	-	Goitre	Burn one Saegodown with 100 gms of Jangli Kulthi all together and apply with oil	-	-	1
109.	Peacock's leg+ Simgrife + Jaifer	-	Earache	Burn in mustard oil and apply	-	-	1
110.	Kundri	Leaves	Earache	Apply juice of Kundri leaves	-	-	1
111.	Babul	Seed	Toothache	Burn babul's seed and apply on teeth	-	-	1
112.	Kabab Chini + Nahamari + Gobi-mades paper +Shon pata +Golki + Kachlanon + Red flower + Misri + Rangain root +Sunr motha + Jamun leper's root + Neem leaves	-	Jaundis	Grind it and make tablets	1 tablet per day		

Sl. No.	Name of the herbs plants	Parts	Uses/Purposes	Preparation methods for different diseases	Dosage Adule	Dosage Child	Frequency
113.	Chilaw a root + cow milk	-	Rangbad	Boil it and give for drinking	-	-	-
114.	Japrad + On 01 root + Araa Bindi + Shawi root Honey + Old molases	-	Pneumonia	Grind and mix with honey make tablets	1+ tablet morning + evening	-	1
115.	Hathi Panjar and honey	-	Mumps	Stick Hathi Panjar with honey	-	-	1
116.	Dumar	1 seed	Stomach Pain	Cook and eat	-	-	1
117.	Kunda Sag	1 root	Dhat	Grind and give for drinking	1 glass	-	1
118.	Sun flower	-	Headache	Stick flower on forehead	-	-	1
119.	Gud sikri	Root	Dysentry	Grind with malases, Dhuwan according to coulam with garai fish (burning in fire) mixing the Dhuwan and make the doses.	-	-	1
120.	Kanmora	Onion	Mumps	Grind the leap with water and apply arroned the effected area.			1
121.	Lambha	Ghas	Eye disease	Making the juice and apply in the corner of the eye during the first time.			
122.	Terio	Root	Gastric	Grind the root ane make it drinks with the water.			
123.	Tesi	Root	Dysentry	Grind with water according to measrument.			1
124.	Maona	Fruit	Amal	To boil and make it drinking the juices			1
125.	Tulsi	Leaves	Malaria	Leaves to eat			1
126.	Tulsi Leaves+ Honey	Leaves	Fever	Mix			

Sl. No.	Name of the Herbal Medicine	Parts	Uses/Purposes	Preparation methods for different diseases	Dosage Adult	Dosage Child	Frequency
127.	Small Blackberry Seed	Seeds	Jaundice	Make powder of seed	Morning	Evening	1
128.	Peacock's fat + Hen's fat + Monkey's		Leprosy	Mix with Karanj Oil and apply on affected area			
129.	Akrkra root + Bear's fat	Root	(Mirgi)Epilepsy	Grind and mix with and make tablets	1 tablet 7 days	1 tab. 3 days	1
130.	Singad Banda + Kathal Bands + Kowa Kapilu	Wood		Mixed with Karanj Oil			
131.	Jayfer + Koyfar + Singar of + Kakda Sindy + Jawatry Mahamari + Kuchita+ Kalajna + Kud		Cold/Cough/ Bodyache	Mixed and make Oil			
132.	Pepal leaves + Honey + Soit + Piper + Golki		Rangbad	Grind, Mix all these things	1 spoon	1/2 spoon	1
133.	Munga root + Sat-gatiya + Moroon Root+ Kuchila 4 pices + Gdarura + Jayfer + Kayfer+Ajwari+Kala Jira		Paralysis	Grind and mix in 1 kg. of mustard Oil, rub			
134.	Heshal Kachal + Kandu chhal		Dysentry	Grind and Sieve	1 cup	1/2 cup	2
135.	Town root + root + Mango root		Diarrhoea	Grind	1 cup	1/2 cup	
136.	Suwar motha herbs		Cough	Mix	1 spoon		
137.	Munga+Geher+Patti+Akwan Hathi Panjar+Onab root+ Nadi ineda+Dkra root		Cough 2 pain	Mix in mustard Oil and apply			
138.	Heng Sagar Gud + Cowghee		T.B.	Mix			

Sl. No.	Name of the herbal Plants	Parts	Uses/Purposes	Preparation methods for different diseases	Dosage Adult	Dosage Child	Frequency
139.	Golmirch + Tulsi(Leaves) Putri(Learns)	Leaves	Fever	Grind all the leaves of plant	-	-	1
140.	Karanj Seed ¼	Seed	Malaria	¼th Seed grind with molases or packed in capsule	¼th	1/8th	1
141.	Sinduar leaves	Leaves	Malaria	1 spoon juice of sinduar leaves	-	-	1
142.	Chota Partu + Khopri Sag + Karanj herb + Papita + Jack fruits berb	-	Typhoid	Grind all herbs and mix with ghee	1 spoon	1 spoon	
142.	Iron		Rangbad	Burn by iron			
144.	Erendi herbs + leaves	Leaves	Rangbad	Burn in Khapra and mix with Karanj oil and apply			
145.	Akwan	Branches leaves root	Cold and cough	Burn all these(Branches + root + leaves) and mix with sugar and ghee			
146.	Gundri Sag		Diarrhoea	Grind with molases	According to age		
147.	Retangora	Root	Snake-bite	Grind the root and give it for drinking and apply on body where there is poison.			

APPENDIX-III

MEDICINAL HERBS PRESCRIBED BY TRIBAL MEDICINE MEN

Sl.No.	NAME OF HERBS	DISEASES
1.	Saheda Kanda	Albuminaria/Uniary problems
2.	Gakhula Kanta (Root)	Albuminaria/Uniary Problems
3.	Beng Sag	Albuminaria/Uniary Problems Snake bite
4.	Jhagar Kand	Filaria, Gastric Ulcer
5.	Kana Gudi	Filaria, Gastric Ulcer
6.	Gurikri	Diarrhoea, spleen, Gall stone, increasing mothers milk
7.	Kulthi	Gall stone
8.	Chint (root)	Jaundice, Increasing mothers milk
9.	Jangli Urad Kanda	Cataract, Conjunctivities, Gonorrhoea
10.	Dawtha tree (sap)	Cataract, Conjunctivities, diarrhoea.
11.	Bhaji(root)	Diarrhoea, Blood dysentry
12.	Mathasag (root)	Diarrhoea/Dysentry/ Breastitis
13.	Kendu tree (Bark)	Filaria
14.	Gai Parhi (Root)	Filaria
15.	Bhuikharha(Root)	Rabies
16.	Hathi Panjar	Rabies
17.	Bhanwar Mali (Root)	Children's Head abcess
18.	Tulsi (leaves)	Epilepsy
19.	Chirchiri	Epilepsy
20.	Tanr Chania	Epilepsy
21.	Ghor Bach	Eye pain, Conjunctivities.

Sl. No.	NAME OF HERBS	DISEASES
22.	Mango tree (Bark)	Loose motion, Jaundice
23.	Hazr Dana or Bhuin Awla	Goitre
24.	Kujri Oil	Chest Pain
25.	Haddijor (creeper)	Bone fracture
26.	Chiraita	Malaria
27.	Murgi Chundi (root)	Seasonal fever, vomiting, Loose motions, small pox, Jaundice.
28.	Latar Parhi	Malaria
29.	Sanjiwan Buti	Asthma, cough, migraine, falling of hairs, abdominal pain during pregnancy, Piarrhoea
30.	Papaya Plant(Root)	Children's disease
31.	Castor Plant(Root)	Children's Disease
32.	Kheksa Kanda	Gastric ulcer, Goitre, Mastitis, Paraylsis, Tetanus, Filaria, Worms Leprosy, Miscarriage
33.	Bhui Champa	Piarrhoea, Leucorrhoea, Sore foot.
34.	Chitawar(Roots)	Goitre
35.	Bhui Neem	Arthritis, Jaundice, glands and abcess of children
36.	Tanr Phudna (Roots)	Piles
37.	Chattan Parhi	Cancer, Worms
38.	Akwan (root)	Pneumonia, Paralysis, Jaundice, rabies, T.B.
39.	Jangli Sarson (root)	Ringworm and eczema

Sl.No.	NAME OF HERBS	DISEASES
40.	Birni Grass (root)	Migraine
41.	Saind (Bark)	Cancer
42.	Dhawai	Bone T.B.
43.	Mahua Juice	Malaria
44.	Pochki Kanda	Old abcess
45.	Sisam tree (bark)	Diabetis
46.	Karonda (root)	Old muscular pain
47.	Amaltas (root)	Snake bite
48.	Tiryak Baujira	Snake bite
49.	Dhudia grass	Scropion bite
50.	Mahua Kanchapra	Nail diseases
51.	Nagbel (root)	Filaria
52.	Belsar (root)	"
53.	Antil (root)	"
54.	Jackfruit (root)	Gout, Arthritis
55.	Mahua	Piarrhoea
56.	Tamarind seed	Snake bite
57.	Bijasal (Bark)	Diabetis
58.	Badlauri	High blood pressure

APPENDIX - IV LIST OF PLANTS USED FOR MEDICINAL PURPOSES BY TRIBAL PEOPLE *

Sl.No.			
1.	Abrus precatorius	29.	Anisomeles ovata
2.	Abutilon indicum	30.	Apluda mutica
3.	Acacia arabica	31.	Argemone mexicana
4.	Acacia calsia	32.	Aridisia solanacea
5.	Acacia catechu	33.	Arstolochia indica
6.	Acacia farnesiana	34.	Asperagus racemosus
7.	Achyranthes aspera	35.	Atylosis scarabaeoide
8.	Acorus calamus	36.	Baliosprmum montanum
9.	Acternanthera sessile	37.	Bassia latifolia
10.	Adhatoda zeylanica	38.	Bauhinic purpurea
11.	Adina cardifolia	39.	Blemea lacera & Fistulosa
12.	Aerva lanata	40.	Boerhaavia diffusa
13.	Aegle marmelos	41.	Bombax malabaricum
14.	Agave americana	42.	Borasus flabellifer
15.	Ageratum conyzoides	43.	Borreria articularis
16.	Ailanthus excelsa	44.	Boswellia serrata & Thurifera
17.	Alangium lamarckii	45.	Bridelia retusa & Squamosa
18.	Albizzia lebbek	46.	Bryonia veronicaefolia
19.	Aloe sp.	47.	Buchanania latifolia(Lanzan)
20.	Alstonia scholaris	48.	Buddleia asiatica
21.	Ammania baccifera	49.	Butea monosperma & Frondosa
22.	Amarphophallus campanulatus	50.	Byttneria herbacea
		51.	Caesulia axillaris
23.	Amogeissus latifolia	52.	Calotropis gigantea
24.	Anthocephalus cadamba	53.	Canscora diffusa
25.	Ampelocissus barbata & Tometosa	54.	Cannabis sativa
		55.	Capparis zeylanica
26.	Andrographis paniculata & Echiodes	56.	Carissa carandas
		57.	Cascarea tomantosa
27.	Andropogon muricatus	58.	Cassia hirsuta & Fistula & Occidantalis
28.	Angelica galuca		

Sl.No.

59. Calastrus paniculatus
60. Centella asiatica
61. Centrantherum anthelmintipum
62. Chlorophytum arundinacum
63. Cinnamonum laurus
64. Cissampelos pareira
65. Chrozophora prostrata
66. Chromolaena odorata
67. Cissus quadrangularis
68. Clerodendron phlomoides & visosum
69. Cordia dichotama & Mixa
70. Combretum decandrum
71. Combretum decandrum
72. Cocculus hirsutus
73. Colebrookea oppositifolia
74. Costus spaciosus
75. Cotyledon laciniata
76. Crotalariaria linifolia/Alata/spectabilis
77. Croton oblong-folius & Roxburghii
78. Croxylum indica
79. Cryptolepis buchanani
80. Curculigo orchioides
81. Curcuma angustifolia
82. Cuscuta chinensis & Reflexa
83. Cyperusina & Rotendus
84. Cyanotis tuberosa
85. Cynodon dactylon
86. Dalbergia latifolia
87. Datura fastuosa
88. Dendrophthoe falcata
89. Desmodium gangeticum/ Triflorum & Pulchellum
90. Digitalis pururea
91. Dioscorea bulbifera
92. Diospyros peregrina & Montama
93. Dipteracanthus prostratus
94. Dolichoslablab & Biflorus
95. Draggia volubilis
96. Eclipta prostata
97. Elaedendron glaucum
98. Elephantopus scaber
99. Elytrophocrus spicatus
100. Emblica officialis
101. Eryceba paniculata
102. Eranthemum purpurascens
103. Erythrena variegata
104. Eugenia jambalana
105. Euphorbia antiquorum & Hirta
106. Evolvulus nummularius
107. Ferrula asafoetida
108. Ficus bengalensis & religious Racemosa
109. Fimbristylis monostachya

110. Flacourtia indica
111. Flemingia(Congesta)
112. Macrophylla and chappar Strobilifera
113. Gardnic turgida & Gummi-fera
114. Gentiana cherayta
115. Globba bulbifera
116. Gluriosa superba
117. Glossogyne bidens
118. Gmelina arborea
119. Gnopholium indicum
120. Xgrevia viliosa & Sapida & Hirsuta
121. Habenaria crinefera
122. Heliauthus annus
123. Helioters isora
124. Hemadelphis puchellum
125. Hemidismus indicus
126. Heteropogon contortus
127. Hibiscus rosasinesis
128. Holarrhena antidysen-terica
129. Hoppea dichotoma
130. Hymenodictyon excele-sum
131. hygrophila salicifolia
132. Hyptis suaveolens
133. Indigofera cassioides
134. Ichnocarpus fruit
135. Ipomoea hederacen
136. Jasminum arborescens
137. Jatropha curcas
138. Lagerstroemia parvifl-ora
139. Lapidogathis hamiltonia
140. Launaea pinnatifida
141. Lawsonia alba & Inermis
142. Leea macrophylla/ awuatta/Crispa
143. Leo Notis nepetaefolia
144. Lepidium sativum
145. Leucas cephalotes
146. Linnophila roxborgh lana & Sessilifera
147. Linum usitatissimum
148. Litsea ladcifolia
149. Lycordium flazuosun
150. Lygodium flexucsum
151. Macrosden cochinchin-ensis
152. Madhu-Ca indica
153. Mangi-Fera indica
154. Marsilia qua drifoliata
155. Meha azadirachta
156. Meywa laxiflora
157. Michelia chameaca
158. Milletio extensa
159. Mimosa rubicaulis
160. Minusops elemgi
161. Maghani sp.
162. Momordica dioica
163. Morinda tinctoria
164. Moringa oleifera
165. Mokuna prurians
166. Musa paradisiaca
167. Nerium indicum
168. Nelsonia canescens

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169. Nicotiana tabacum
170. Nyttanthes arbortristis
171. Nymphaea rubra
172. Ochna squarrosa & Obtusata
173. Ocimum santum & Basilicum & Canum
174. Odina wodier
175. Oroxfyion indicum
176. Panicum repens
177. Paracalyx scariosus
178. Papaber sominferum
179. Pavetta indica
180. Pergularia extensa
181. Pevceda nagpurensis
182. Phaseolus mungo
183. Phyllanthus embellica
184. Piper longum
185. Plumbago zeylanica
186. Plimeria actifolia & Rubra
187. Pogos temon patchooli
188. Polygala crotalarioides & Arvensis
189. Plygonum plebeium
190. Premna herbacea
191. Pterospermum accrifolium
192. Pterocarpus marcupium
193. Pueraria tuberosa
194. Pygmaepremna herbacea
195. Scarpus monostachytus
196. Schleichera triuga & Obosa
197. Scoparia dulcis
198. Semecarpus anacardium
199. Shorea robusta
200. Sida corpinfolia & Acuta
201. Smilax zeylanica & Macrophylla
202. Solanum melogina & Stramonifolium & Xenthocarpum & Khasianum
203. Soymida febrefuga
204. Spermacoce hispida
205. Sthaeranthus indicus
206. Spondiae (Mangifera) pinnata
207. Stephegyne parvifolia
208. Sterculia urens
209. Streblis asper
210. Strychnos potatatorum
211. Swertia chireta
212. Randia dumetorum & Uliginosa
213. Ricimus communis
214. Rivea hypocrateriformis
215. Rotala densiflora
216. Rubia tinctoria
217. Tamarindus indica
218. Techtona grandis
219. Terminalia alato
220. Terminalia chebula
221. Terminalia belerica
222. Terminalia arjuna
223. Terminalia tomentosa
224. Taxillus tomentosus
225. Tetranthera monophila & Laurifolia

226. Themeda triandra
227. Thysanolaena maxima
228. Thespesia lampas
229. Tinospora cordifolia
230. Trigonella graceum
231. Triumfetta rhomboides
232. Tridax procumbens
233. Toona ciliata
234. Ventiloga calyculata
235. Vernonia cinerea &
Anthimintica
236. Vanda tesspllata
237. Vicoa indica
238. Viscum articulatum
239. Vitex negundo
240. Vitex peduncularis
241. Vitis adenata &
Tomatosa & Ripenda
242. & Quadrangularis
242. Woodfordia floribunda
243. Woodfordia fruiticosa
244. Wrightia tomentosa
245. Xeromphis spinosa
246. Yucca gloriosa
247. Zea mays
248. Zizyphus jujuba
249. Zizphus xylopyrus
250. Zingiber officinalis
251. Zomnia diphylla

APPENDIX - V NAME OF TRAINED VILLAGE HEALTH WORKERS

Sl.No.	Name of village Health Worker	Name of Village
1.	Silverius Kandulna	Sarbo
2.	Peter Surin	Kulburu
3.	Phuljence Barla	Bartoli Banai
4.	Philisita Lakra	Bartoli
5.	Xavier Lakra	Sakrabahar
6.	Anthony Kujur	Sawan
7.	Joseph Surin	Diurgarha
8.	Cellestina Kullu	Birkera
9.	Mary Anna Toppo	Korchebahar
10.	Cellestin Baa	Burhikudar
11.	Silbia Tete	Belgarh
12.	Emil Bara	Konoskeli
13.	Sylvester Minj	Malsara
14.	George Baxla	Harindhara
15.	Joalkim Kerketta	Pharsabera
16.	John Kullu	Karamukha
17.	Mathias Soreng	Sirupradhia
18.	Zackarias Toppo	Ampa Toli
19.	Lalita Kujur	Nauhata
20.	Norbat Lakra	Murumtoli
21.	Ethel Minj	Tongo
22.	Salomi Tirkey	Champur
23.	Carolina Toppo	Champur
24.	Clotilda Kujur	Sugasarwa
25.	Albina Lakra	Janawal
26.	Joseph Xalxo	Sisi Jamtoli
27.	Xavier Minj	Bitri

(Contd...2)

Sl. No.	Name of Village Health Worker	Name of Village
28.	Juel Tirkey	Shanti Nagar
29.	Lajrus Dungdung	Jokari
30.	Mary Minj Ramdega	Ramdega
31.	Agapit Barla	Vijaygiri
32.	Jawahar Lall Taw	Mokromdih
33.	Leestina Toppo	Makhmandro

CHAPTER - V

CONCLUSION AND SUGGESTIONS

One of the facts established by the survey is that herbal medicine is still popular among the tribal people in the remote rural areas of Ranchi, Gumla, Singhbhum and Palamau districts. Dependence of the tribal people on herbal medicine is partly due to the fact that modern medical facilities are not readily available in remote areas and partly due to the socio-cultural factors of faith of the tribal people in the capacity of the Ojhas to drive away or propiciate spirits which cause diseases and also their faith in the efficacy of herbs in curing various diseases. The reasons are also economic. If the tribal person knows the herbs the treatment is almost costless. Even if he calls a tribal medicine man his fee is very reasonable, generally a cup of rice beer or country liquor and the price of medicine, if it is to be purchased from the market. But if the herbs are to be procured from the forest the price is generally not charged. It is another matter that the tribal may decide to give a piece of cloth or food grain to the medicinemen out of gratitude, if the treatment is successful.

So long we are not in a position to ensure cheap and effective treatment of the diseases particularly the common illness like, fever, cold, cough and bowel dis-orders, it is not only necessary but desirable to help and support the tribal system of medicine. Once the medical facilities are universally available in remote areas, it will be for the people themselves to decide whether to continue their

dependence on herbal medicine or to go in for modern allopatic treatment.

Besides effective treatment of common ailment like fever, cold, cough and bowel dis-orders, practioners of herbal medicine claim to have treated serious diseases like T.B. and cancer. This claim deserves to be fully verified by detailed test on patients thus cured. Besides, the medicinal properties of herbs used in the treatment needs to be scientifically tested and established. If the claim is substantiated after extensive tests and trials the herbs should be selected for development and wider clinical use.

Besides the treatment of serious diseases, an important area in which advantage can be taken of tribal medicine is that of population control. Dr. S.P. Gupta former Director, Bihar Tribal Research Institute has mentioned in his work on tribal medicine about Arum saguninum (Caladium saguinum), and Lasia spinosa which are used by the tribal people for anti-fertility purpose. The Oraon used Bripoella spinosa for permanent sterility. Several abortificient plants like Pupraria tuberosa and Tithi are also known to the tribal people. A recent study on ethno-botany of Santhal Parganas lists plants like Alysicarpus vaginalis, Annona squamosa, Cassifistula, Croton roxburghii, Dendrophthoe faccata, Indigofera linnaei and Plumbago zeylanica, as having anti-fertility properties. In view of the high priority accorded to population control, research on such plants deserves to

be given immediate attention.

The knowledge of herbs including the ability to identify it and collect it from the forest is at present confined to a few tribal medicine men and to a few tribal families who have aquired it through hereditary sources. The danger of this knowledge being lost to the society sooner than later because of various social and economic factors has been discussed in an earlier chapter of this report. It would be a tragedy if it is allowed to happen. It is therefore necessary that steps should be taken for preparing a comprehensive list of medicinal herbs that grow in the tribal areas of Bihar. This report is only a first step in this direction. We have tried to compile as much information on medicinal herbs as could be possible by consulting published documentry sources as well as contacting tribal medicine men and households for this purpose. So far as a list prepared on the basis of interviews with tribal medicine men and tribal householders is concerned, we could get only the local names of the herbs but not their botantical names. The other lists however, give the botandcal names as well. It is just likely that most of the medicinal herbs in our list occur in the other list in their botanical name form. But there may be many more for which botanical names may not have been given. What is necessary now is that the comprehensive list of medicinal herbs that is prepared contains not only the local name but also the botanical equivalent anda also indicates the specific location where the herbs are found and the specific purpose for which these herbs are used.

Needless to say the co-operation of the tribal medicine man would be absolutely essential for completing the task of this nature. Fortunately most of the tribal medicine men contacted by us in the course of the study were not at all secretive but extremely co-operative in sharing the knowledge of herbs. Infact, most of them are concerned about the future of this system of medicine and are very much interested in its preservation and propogation. The first step towards preparation of the dictionary of medicinal herbs, will be to contact as many medicine men as possible and encourage and motivate them to prepare the list of herbs known to them. Rural seminars and workshop of these medicine men could also be organised for discussion and exchange of list between them. Some of tribal medicine men who are literate have already prepared hand-written manuals from which the necessary information regarding medicinal herbs could be obtained and compiled and even considered for publication with the permission of the authors.

Another important issue deserving immediate attention is that of preservation of medicinal herbs from complete extinction. Some of the factors responsible for destruction of herbs are well known. With the destruction of forest, most of the herbs that grow in the forest are also automatically disappearing. A very valuable herb, Chatan Parhi, useful for treatment of many serious diseases grows out of the crevices of hillocks. With rapid expansion of stone quarry work, this herb is also becoming scarce. Forest fires also play their role in destroying the herbs.

Another important reason leading to the extinction of many important herbs is lack of knowledge about proper methods of collection of herbs. For instance , when a bark of a tree is prescribed the entire tree is felled for debarking, or the whole tree is stripped off. Mr. P.P. Hemrom mentions that life saving drugs like Celastrus Paniculata Rauwolfia Serpentian, Soymida Fabrifuga, Vitex, Poduncularis, Tylophora, Asthamtica, Caesalpinia, Bondu Cella, Adhatoda vasica, Andrographic echioides, and so many others are gradually vanishing. Similarly other valuable medicines like Asparagus Racemosus, Centella Asiatica, Ichnocarpus Frutescens, Cissampelos pareira, Ventilago Calyculata, Curculigo orchioides, Gloriosa Superba, Gymnema Hirsuta and so many others, are becoming rare species. And if it is allowed to continue, days are not far when they will be totally extinct. Similarly there are several herbs which are becoming extinct because a proper method for taking out the upper roots is not being used. Instead the entire plant is uprooted with the result there is no natural regeneration of these herbs. Moreover, ruthless commercial exploitation is also responsible for gradual extinction of medicinal herb species. Mr. P.P. Hemrom mentions Oroxylon Indicum, Litsaea Polyantha and Terminalia Arjuna which are dying out for this very reason.

Necessary steps therefore have to be taken for

(a) Identification of threatened herbal species with the co-operation of herbal medicine men.

(b) Conservation of the forest areas where such species are grown.

(c) Education of the people who collect herbs either for personal use or for commercial purpose in proper methods of collection of these herbs.

(d) If necessary curb may have to be imposed on the commercial exploitation of important herbs which may be in the danger of becoming extinct on account of over exploitation, by regulating their marketing.

Besides preservation of herbal species propagation of important herbal species is no less important. Important herbs may be selected and grown in departmental plantations and nurseries. A number of nurseries may be set up at suitable places preferably close to the forest and in an area where a knowledgable medicine man is available. In these nurseries important herbs will be grown not only to preserve the species but also to make the sapling available for propagation elsewhere. These nurseries will also be helpful to villages and trainees in identification of plants. It will become much easier for them to identify the herbs grown in nurseries than in a forest. Once fully familiar with these medicines they can go in search of these species in the forest. The nursery will also supply the herbs to research Institution for a study of its botanical features and its medicinal properties. The nursery will also help in arranging the marketing of herbs by maintaining links with the producer of herbs in that area. A voluntary organisation Ankuran is maintaining a nursery at Chatra with about 100 species most of which are commonly known and are a part of the

Ayurvedic system. This organisation with the assistance from a foreign funding agency is developing a farm for cultivation of herbs on a regular basis. Ankuran is also exploring the possibility of commercial sale of herbs grown by it or by farmers in that area.

Such herbaria may be set up by the forest department or by voluntary organisations with liberal government assistance. In either case ther herbaria has to be under the supervision of a tribal medicine man and/or Ethenobotanist.

TRAINING :

Training of practitioners of herbal medicine and protection and propogation of medicinal herbs will have to go hand in hand. It goes to the credit of tribal medicine men who have kept the interest in herbal medicine alive for generations. With the growing lack of interest in herbal medicines the number of tribal medicine men is likely to go down and they may eventually disappear. Before some of the reknowned tribal medicine men like Fr. Gabriel Hemrom and Mr. P.P. Hemrom leave the scene, it is necessary that their services are utilised for training of village health workers in the tribal system of medicine to enable them to practise in a systematic and scientific manner. As mentioned earlier such training activities are at present mainly confined to Christian Organisations. The training facilities offered by them are to a great extent confined to people of their own faith. In order that people in

general receive the benefit of training, the training activities have to be more broad based involving the government and the voluntary organisations. In St.Augustine's College at Manoharpur, where Fr. Gabriel is a faculty, the syllabus includes study of symptoms of important diseases and regular training in identification of important herbs. Mr. P.P. Hemrom has suggested a syllabus for training extending over 12 weeks which includes diagnosis and treatment of all the principal diseases through herbal medicines. The syllabus suggested by these two important men are appended to this chapter.

RESEARCH :

So far only well known herbs have received attention of scientific research in drug laboratories and pharmacology departments of medical colleges. It is important that the drug research laboratories are advised to expand their activities and include some of the important medicinal herbs of tribal areas for research. This research may be multi -diciplinary in nature seeking the co-operation of anthropologist, ethneobotanist and biochemist. Research on antifertility herbs and herbs for treatment of cancer and T.B. may be given higher priority.

Some of the important medicine men contacted by us are running their informal clinics and are practicing herbal medicine more in the spirit of service to the people than to make money out of it. They have to face numerous contraints and their services are being utilised by the local people only. In order that the benefit of

their knowledge and experience is available to a wider clientele, some of these medicine men may be given financial assistance for visiting selected places in remote rural areas on fixed week days and attending to the patients of those areas also. For obvious reasons no elaborate arrangement is necessary for setting up of these temporary clinics for tribal medicinemen. They may be set up anywhere , in a primary school building or in a health sub-centre or in any other suitable building. This is necessary not only for popularisation of tribal medicine but also for making this cheap effective system of treatment available to people in remote rural area where modern medical facilities are not available.

Another steps for popularisation of herbal medicine could be the publication of a simple manual on diagnosis and treatment of common diseases through the use of herbs found in the area. These manuals will provide essential information regarding diseases and also about the identification of herbs and the method of preparing medicines out of them. Infact, a manual of this nature has been prepared by Sister Jacinta of St. Anna Convent, Ranchi, which is being used for tribal village health workers. That may be taken as a model and considered for publication in Hindi and in local languages.

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APPENDIX - I

SYLLABUS FOR TRAINING

(Prepared by Mr. P.P. Hembrom)

Ist Week :

(a) Community Health Care.
(b) Primary Knowledge about Blood and its diseases, Hear diseases.
(c) Fevers, Intermittant fevers.

IInd Week :

Causes, Symptoms, cure and prevention for disorder of Digestive system.

IIIrd Week :

Causes, symptoms, cure and prevention for
(a) Disorders for urinary system
(b) Water borne diseases
(c) Insect borne diseases

IV th Week :

Causes, symptoms, cure and prevention for common diseases in respiratory system.

Vth Week :

Causes, symptoms, cure and prevention for common diseases in Nervour system.

VIth Week :

Causes , symptoms cure and preventionfor skin disorders and diseases.

VIIth Week :

Common ailments of children.

IXth Week :

Causes, symptoms, cure and prevention for

(a) Common Air borne diseases

(b) T.B., Cancer, Diabetes, Mellitus, Allergy, Old age, etc.

Xth Week :

Mental Health, V.D. , Common Surgical complain, Eye, Nose, Throat, Tooth, Ear, Mouth.

XIth Week :

Bones, Joints , Muscles and its disorders - diagonosis.

XII Week :

Practical Work, Examination.

APPENDIX - II

S Y L L A B U S

(Prepared by Rev. G. Hemrom)

1. Rules for maintenance of health including diet and daily routine.

2. Important diseases - symptoms and causes

3. Important medicinal herbs - Identification and treatment.

4. Plantation of herbs - care of herbs and methods of preservation and extraction.

5. Methods for preparing medicine from important herbs for treatment of diseases .

6. Care of patients.

TABLE NO :1 CASTE COMPOSITION

Blocks	Caste			Total Household Surveyed
	SC	ST	Others	
Bano	06 4.55%	97 73.48%	29 21.97%	132 100%
Bishunpur	08 3.52%	219 96.48%	-	227
Chandwa	111 54.68%	79 38.92%	13 6.40%	203 100%
Manoharpur	08 4.37%	115 62.84%	60 32.79%	183 100%
Simdega	03 1.79%	114 67.85%	51 30.36%	168 100%
Grand Total	136 14.90%	624 68.35%	153 16.75%	913 100%

TABLE NO : 2 RELIGION COMPOSITION

Blocks	Religion				Total Household Surveyed
	Hindu	Muslim	Christian	Sarna	
Bano	56 42.42%	-	71 53.79%	05 3.79%	132 100%
Bishunpur	08 3.52%	01 0.44%	200 88.11%	18 7.93%	227 100%
Chandwa	141 69.46%	02 0.99%	29 14.29%	31 15.27%	203 100%
Manoharpur	69 37.70%	-	21 11.48%	93 50.82%	183 100%
Simdega	49 29.17%	-	79 47.02%	40 23.81%	168 100%
Grand Total	323 35.38%	03 0.33%	400 43.81%	187 20.48%	913 100%

TABLE NO : 3 AGE, SEX DISTRIBUTION

Blocks	Age & sex								Total Male (M)	Total Female (F)	Grand Total (M+F)
	0 - 5		5 - 15		15 - 55		55 & above				
	M	F	M	F	M	F	M	F			
Bano	57 15.53%	39 10.34%	88 23.98%	115 30.50%	214 58.31%	214 56.76%	08 2.18%	09 2.39%	367 49.33%	377 50.67%	744 100%
Bishunpur	102 13.73%	104 14.69%	219 29.48%	213 30.08%	381 51.28%	358 50.56%	41 5.52%	33 4.66%	743 51.21%	708 48.79%	1451 100%
Chandwa	77 13.51%	83 15.01%	161 28.25%	167 30.20%	308 50.04%	287 51.90%	24 4.21%	16 2.89%	570 50.76%	553 49.24%	1123 100%
Manohar-pur	74 13.88%	68 14.29%	112 21.02%	120 25.21%	334 62.66%	277 58.19%	13 2.44%	11 2.31%	533 52.82%	476 47.18%	1009 100%
Simdega	72 13.21%	74 13.48%	140 25.69%	131 23.86%	304 55.78%	307 55.91%	29 5.32%	37 6.75%	545 49.81%	549 50.18%	1094 100%
Grand Total	382 13.85%	368 13.82%	720 26.11%	746 28.01%	1541 55.87%	1443 54.19%	115 4.17%	106 3.98%	2758 50.88%	2663 49.12%	5421 100%

TABLE NO : 4 FAMILY COMPOSITION

Blocks	Family Composition		Total Household (Surveyed)
	Joint	Nuclear	
Bano	19 14.39%	113 85.61%	132 100%
Bishunpur	23 10.13%	204 89.87%	227 100%
Chandwa	28 13.79%	175 86.21%	203 100%
Manoharpur	41 22.40%	142 77.60%	183 100%
Simdega	26 15.48%	142 84.52%	168 100%
Grand Total	137 15.00%	776 85.00%	913 100%

TABLE NO :5

LITERACY LEVEL

Blocks	Non-School going children		Illiterate		Primary		Middle	
	M	F	M	F	M	F	M	F
Bano	62 16.89%	46 12.20%	175 47.68%	251 66.58%	63 17.17%	54 14.32%	32 8.72%	15 3.98%
Bishunpur	102 13.73%	104 14.69%	315 42.40%	402 56.78%	174 23.42%	124 17.51%	56 7.54%	37 5.23%
Chandwa	77 13.51%	83 15.01%	433 75.96%	450 81.37%	38 6.67%	13 2.35%	13 2.28%	03 0.54%
Manohar-pur	74 13.88%	68 14.29%	222 41.65%	301 63.24%	72 13.51%	37 7.77%	52 9.76%	39 8.19%
Simdega	72 13.21%	74 13.48%	240 44.04%	335 61.02%	102 18.72%	64 11.66%	46 8.44%	29 5.28%
Grand Total	387 14.03%	375 14.08%	1385 50.22%	1739 65.30%	449 16.28%	292 10.97%	199 7.22%	123 4.62%

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Blocks	Secondary		College		Technical		Others		Grand Total
	M	F	M	F	M	F	M	F	
Bano	31 8.45%	08 2.12%	04 1.09%	03 0.80%	-	-	-	-	744
Bishunpur	76 10.23%	37 5.23%	19 2.56%	04 0.56%	-	-	01 0.13%	-	1451
Chandwa	08 1.40%	04 0.72%	-	-	-	-	01 0.18%	-	1123
Manohar-pur	80 15.01%	25 5.25%	32 6.00%	06 1.26%	01 0.19%	-	-	-	1009
Simdega	60 11.01%	36 6.38%	25 4.59%	12 2.18%	-	-	-	-	1094
Grand Total	255 9.25%	109 4.09%	80 2.90%	25 0.94%	01 0.03%	-	02 0.07%	-	5421

TABLE NO :6 OCCUPATIONAL STRUCTURE

Blocks	Primary Occupation						
	Cultivation	A.L.	C.L.	Service	Business	Artisan	Others
Bano	122 92.42%	-	03 2.27%	04 3.03%	02 1.51%	01 0.75%	-
Bishunpur	213 93.83%	-	-	13 5.73%	-	01 0.76%	-
Chandwa	176 86.70%	01 0.49%	-	03 1.48%	-	23 11.33%	-
Manoharpur	157 85.79%	08 4.37%	03 1.64%	05 2.73%	07 3.83%	03 1.64%	-
Simdega	150 89.29%	-	03 1.79%	08 4.76%	01 0.60%	05 2.98%	01 0.60%
Grand Total	818 89.59%	09 0.99%	09 0.99%	33 3.61%	10 1.09%	33 3.61%	01 0.11%

Contd ....

Blocks	secondary Occupation						Total Households
	Cultivation	A.L.	C.L.	Service	Business	Artisan	
Bano	07 5.30%	04 3.03%	42 31.82%	03 2.27%	01 0.75%	02 1.51%	132 100%
Bishunpur	12 5.29%	-	38 16.74%	03 1.32%	-	06 2.64%	227 100%
Chandwa	24 11.82%	10 4.93%	27 13.30%	02 0.99%	-	10 4.93%	203 100%
Manoharpur	13 7.10%	-	57 31.15%	03 1.64%	11 6.01%	01 0.54%	183 100%
Simdega	17 10.12%	02 1.19%	46 27.38%	07 4.17%	01 0.60%	-	168 100%
Grand Total	73 7.99%	16 1.75%	210 23.00%	18 1.97%	13 1.42%	19 2.08%	913 100%

TABLE NO : 7 INCOME DISTRIBUTION

Blocks	Total income of the sample households (in Rs.)	No. of households	No. of individuals	Per household income (in Rs.)	Per - capita income (in Rs.)
Bano	767500	132	744	5814.40	1031.59
Bishunpur	612900	227	1451	2700.00	422.40
Chandwa	1274500	203	1123	6278.32	1134.91
Manoharpur	1144500	183	1000	6254.10	1134.29
Simdega	1082300	168	1094	6442.26	989.30
Grand Total	4881700	913	5421	5346.88	900.52

TABLE NO. 8 CASTE AND PREFERENCE LEVEL

Caste	Treatment preferred				
	Homeo-pathic	Aurvedic	Allo-pathic	Herbal	Total
SC	-	03 2.21%	95 69.85%	38 27.94%	136 100%
ST	01 0.16%	20 3.21%	338 54.17%	265 42.47%	624 100%
Others	-	04 2.61%	84 54.90%	65 42.48%	153 100%
Total	01 0.11%	27 2.96%	517 56.62%	368 40.31%	913 100%

TABLE NO. 9 FAMILY LITERACY RATIO AND PREFERENCE LEVEL

	Treatment preferred				
Literate/ total family members	Homoeo-pathic	Aurvedic	Allo-pathic	Herbal	Total
0-0.25	01 0.19%	16 2.98%	283 52.70%	237 44.13%	537 100%
0.26-0.50	-	06 3.08%	110 56.41%	79 40.51%	195 100%
0.51-0.75	-	03 2.91%	68 66.02%	32 31.07%	103 100%
0.76-1.00	-	02 2.56%	56 71.79%	20 25.64%	78 100%

TABLE NO.10 FREQUENCY IN USE OF HERBAL MEDICINE

	Blocks	USE OF HERBAL MEDICINE				Total House-holds
		Not at all	Some time	Most of the times	Always	
1.	Bano	01 0.76%	67 50.76%	59 44.69%	05 3.79%	132 100%
2.	Bishun-pur	49 21.59%	158 69.60%	17 7.49%	03 1.32%	227 100%
	Chandwa	127 62.56%	73 35.96%	03 1.48%	-	203 100%
	Manohar-pur	57 31.15%	100 54.64%	22 12.02%	04 2.18%	183 100%
	Simdega	23 13.69%	93 55.36%	29 17.26%	23 13.69%	168 100%
	Grand total	257 28.15%	491 53.78%	130 14.24%	35 3.83%	913 100%

TABLE NO.11 INCOME AND PREFERENCE LEVEL

Income in (Rs.)	Treatment Preferred				
	Homeo-pathic	Aurvedic	Allo-pathic	Herbal	Total
Up to Rs.2400/-	01 7.69%	01 7.69%	02 15.38%	09 69.23%	13 100%
Rs.2400/- Rs.3600/-	-	01 0.76%	38 29.01%	92 70.23%	131 100%
Rs.3600/- Rs.4800/-	-	07 4.43%	64 40.51%	87 55.06%	158 100%
Rs.4800/- Rs.6400/-	-	08 2.79%	155 54.01%	124 43.21%	287 100%
Rs.6400 & above	-	10 3.09%	258 79.63%	56 17.28%	324 100%
Total	01 0.11%	27 2.96%	517 56.63%	368 40.31%	913 100%

TABLE NO. 12 IMPORTANT REASONS FOR TREATMENT PREFERENCE

Treatment prefered	Reasons for Prefelence[a]				
	Easy Access	Effective ness	Cheapness	Due to Tradition	Others
Homeeo-pathic	1.00	2.00	3.00	-	-
Aurvedic	2.19	1.31	2.29	2.89	-
Allo-pathic	1.83	1.29	2.55	3.00	2.93
Herbal	1.67	1.53	2.61	2.89	3.00

a. The ranks are assigned to indicate the importance of reasons. Lower the rank, higher is the importance of a particular reason for preference. The importance of a particular reason = Total ranks of all individuals to a particular reason/ Total number of individuals.

TABLE NO:13. OCCURANCE OF DISEASES

Sl. No.	Blocks	Malaria	Cold/ cough	Fever	Typhoid	Dirr-hoea/ dy-sentry	Others
1.	Bano	123 93.18%	121 91.67%	129 97.73%	01 0.76%	72 54.55%	07 5.30%
2.	Bishun-pur	223 98.24%	191 84.14%	125 55.07%	28 12.33%	87 38.33%	43 18.94%
3.	Chandwa	193 95.07%	176 86.70%	200 98.52%	24 11.82%	72 35.47%	18 8.87%
4.	Mahoher-pur	178 97.27%	183 100.0%	180 98.36%	17 9.29%	100 54.64%	52 28.42%
5.	Simdega	157 93.45%	144 85.71%	155 92.26%	10 5.95%	121 72.02%	42 25.0%
	Grand total	874 95.73%	815 89.27%	789 86.42%	80 8.76%	452 49.51%	162 17.74%

TABLE NO : 14 HERBAL AND RELATED TREATMENT

Blocks	Malaria				Cold/Cough				Fever			
	Herbal	Homeopathy	Aurvedic	Allopathy	Herbal	Homeopathy	Aurvedic	Allopathy	Herbal	Homeopathy	Aurvedic	Allopathy
Bano	89 72.35%	04 3.25%	22 17.88%	53 43.08%	105 86.77%	08 6.61%	17 14.04%	03 2.47%	95 73.64%	04 3.10%	14 10.85%	13 10.07%
Bishunpur	76 34.08%	-	01 0.44%	199 89.23%	128 67.01%	-	05 2.61%	109 57.06%	80 64.00%	-	-	85 68.00%
Chandwa	07 3.62%	-	06 3.10%	189 97.92%	16 9.09%	-	03 1.70%	160 90.90%	07 3.50%	-	36 18.00%	164 82.00%
Manoharpur	66 37.07	05 2.80%	-	140 78.65%	86 46.99%	03 1.63%	01 0.54%	100 54.64%	110 61.11%	05 2.77%	03 1.66%	121 67.22%
Simdega	83 52.86%	04 2.54%	16 10.19%	88 56.05%	97 67.36%	04 2.77%	09 5.80%	64 41.29%	98 63.22%	01 0.65%	09 5.80%	92 59.35%
Grand Total	321 36.73%	13 1.49%	45 5.14%	669 76.54%	432 53.01%	15 1.84%	35 4.29%	436 53.50%	390 49.43%	10 1.27%	62 7.86%	475 60.20%

(Contd ....2)

(Contd ..2) TABLE NO : 14 HERBAL AND RELATED TREATMENT

Block	Typhoid				Diarrhoea/Dysentry				Others			
	Herbal	Homeo-pathy	Aurve-dic	Allo-pathy	Herbal	Homeo-pathy	Aurve-dic	Allo-pathy	Herbal	Homeo-pathy	Aurve-dic	Allopa-thy
Bano	02 10%	-	-	-	71 98.55%	02 2.78%	14 19.44%	05 6.94%	07 100%	-	-	-
Bishon-pur	12 42.85%	-	-	24 85.71%	85 97.70%	-	-	24 27.59%	18 41.86%	-	-	34 79.07%
Chandwa	01 4.17%	-	01 4.17%	22 91.67%	13 18.06%	04 5.56%	01 1.39%	07 93.06%	13 72.22%	-	03 16.67%	17 94.44%
Manoharpur	10 58.82%	05 29.41%	01 5.88%	10 58.82%	70 70.00%	04 4.00%	-	38 38.00%	34 65.38%	01 1.92%	-	23 44.23%
Simdega	05 50.00%	-	06 60.00%	01 1.00%	79 65.29%	-	01 0.83%	51 42.15%	36 85.71%	-	08 79.05%	20 47.62%
Grand Total	29 36.25%	05 6.25%	08 10.00%	57 71.25%	318 70.35%	10 2.21%	16 3.54%	185 40.93%	101 62.35%	01 0.62%	11 6.79%	94 58.02%

TABLE NO.15 DISEASES AND PERIOD OF SUFFERING

Blocks	Malaria				Cold/Cough				Fever			
	Weekly	Fort-nightly	Monthly	More than a month	Weekly	Forth-nightly	Month-ly	More than a month	Weekly	Fort-nightly	Month-ly	More than a month
Bano	34 27.64%	87 70.73%	01 0.81%	01 0.81%	82 67.76%	32 26.44%	06 4.96%	01 0.82%	65 50.38%	58 44.96%	02 1.55%	04 3.10%
Bishun-pur	65 29.15%	108 48.43%	47 21.07%	03 1.34%	160 83.77%	28 14.66%	03 1.57%	-	117 93.60%	07 5.60%	01 0.80%	-
Chand-wa	72 37.30%	94 48.70%	20 10.36%	07 3.63%	150 85.23%	22 12.50%	03 1.70%	01 0.57%	97 48.5%	84 42.0%	15 7.5%	04 2.0%
Manohar-pur	53 29.77%	115 64.61%	10 5.62%	-	173 94.53%	10 5.47%	-	-	58 32.22%	115 63.88%	07 3.88%	-
Sim-dega	39 24.84%	110 70.06%	08 5.09%	-	66 45.83%	61 42.36%	17 11.80%	-	25 16.13%	127 81.93%	02 1.29%	01 0.64%
Grand total	263 30.09%	514 58.81%	86 9.84%	11 1.26%	631 77.42%	153 18.77%	29 3.56%	02 0.24%	362 45.88%	391 49.55%	27 3.42%	09 1.14%

Contd...2

CONTD...2 TABLE NO.15 DISEASES AND PERIOD OF SUFFERING

Blocks	Typhoid				Diarrhoea/Dysentry				Others			
	Weekly	Fort-nightly	Monthly	More than a month	Weekly	Fort-nightly	Monthly	More than a month	Weekly	Fort-nightly	Monthly	More than a month
Bano	01 100.00%				45 62.50%	26 36.11%		01 1.39%	04 57.14%		01 14.29%	02 28.57%
Bishun-pur	13 45.43%	12 42.86%	03 10.71%	-	77 88.51%	-	07 8.05%	03 3.45%	21 48.84%	08 18.60%	09 20.93%	05 11.63%
Chand-wa	20 83.33%	-	02 8.33%	02 8.33%	55 76.39%	-	15 20.83%	02 2.78%	7 38.89%	7 38.89%	-	04 22.22%
Sim-dega	04 40.00%	05 50.00%	-	01 10.00%	78 64.46%	35 28.93%	08 6.61%	-	13 30.95%	05 11.90%	05 11.90%	19 45.24%
Grand total	43 53.75%	24 30.00%	07 8.75%	06 7.50%	289 63.94%	122 26.99%	35 7.74%	06 1.33%	55 33.95%	47 29.01%	22 13.58%	38 23.46%

TABLE NO. 16 SOURCES PROVIDING KNOWLEDGE ABOUT HERBAL MEDICINE

Block	Any knowledge of Herbal Medicine		Parents	Friends	Relative	Others
	Yes	No				
Bano	32 24.24%	100 75.76%	01 3.12%	31 96.87%	17 53.12%	16 51.61%
Bishun-pur	35 15.42%	192 84.58%	06 17.14%	14 40.00%	14 40.00%	11 31.43%
Chandwa	25 13.32%	178 87.68%	05 20.00%	12 48.00%	17 68.00%	12 48.00%
Manohar-pur	45 24.59%	139 75.96%	27 60.00%	22 48.88%	36 80.00%	27 60.00%
Simdega	12 7.14%	156 92.86%	01 8.33%	09 75.00%	09 75.00%	05 41.67%
Grand total	149 16.32%	765 83.79%	40 26.84%	88 59.06%	93 62.41%	71 47.65%

*Percentages are taken from the number of households who have knowledge of Herbal Medicine.

TABLE NO.17 PROCUREMENT OF HERBAL MEDICINE

Block	From the forest	Cultivated at home	From Ojha/ Baidh	From Grocer	From any other sources
Bano	89 67.93%	05 16.13%	115 87.78%	30 22.90%	01 0.76%
Bishunpur	160 89.88%	04 2.24%	133 74.72%	04 2.24%	01 0.56%
Chandwa	72 94.73%	03 3.94%	68 98.47%	10 13.15%	03 3.94%
Manoharpur	114 90.47%	17 13.49%	120 95.23%	23 18.25%	10 7.93%
Simdega	106 73.10%	02 1.37%	134 92.41%	40 27.58%	06 4.13%
Grand total	541 82.46%	31 4.72%	570 86.89%	107 16.31%	21 3.20%

*Percentages are taken out from the number of household using Herbal Medicine.

TABLE NO. 18 DIFFICULTIES IN PROCURING HERBAL MEDICINE

Block	Not cultivated at home	Restriction in the forest	Distance	Lack of proper knowledge & experience to detect the Herbal Medicine	Low preference of family members for Herbal Plant	Others
Baro	88 66.67%	-	24 18.18%	96 72.73%	14 10.61%	06 4.55%
Bishunpur	152 66.96%	05 2.20%	15 6.61%	194 85.46%	167 73.57%	18 7.93%
Chandwa	71 34.98%	10 4.93%	05 2.46%	153 75.37%	81 39.90%	09 4.43%
Manohar pur	115 62.84%	15 8.20%	92 50.27%	141 77.05%	93 50.82%	72 39.34%
Simdega	98 58.33%	-	-	131 77.98%	59 35.12%	-
Grand total	524 57.39%	30 3.29%	136 14.90%	715 78.31%	414 45.35%	105 11.50%